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# CHIECO - GRAYBACK

## PLANNING UNIT



Forest Service · USDA  
Pacific Northwest Region  
Siskiyou National Forest

final environmental statement







## RECORD OF DECISION

Chetco-Grayback Planning Unit Land Management Plan  
Final Environmental Impact Statement  
Josephine and Curry Counties, Oregon  
Del Norte County, California  
USDA - Forest Service  
Siskiyou National Forest

Based on the analysis and evaluation in the final environmental impact statement for the Chetco-Grayback Planning Unit Land Management Plan, it is my decision to adopt Alternative D as the plan for management for these National Forest lands. This plan will amend the existing Illinois Valley and Chetco Ranger Districts multiple use plans. This amendment was prepared with the intent of complying as fully as practicable with the provisions of Section 6 of the National Forest Management Act. In many respects it is consistent with the NFMA regulations. It was prepared by an interdisciplinary team using an interdisciplinary approach. The public participated in development of the plan. The interdisciplinary team coordinated their efforts with state and local governmental agencies as required by Sec 6(g) of NFMA, the amendment is based on an inventory of resources and uses in the area. An analysis of the suitability of resource use on the various land areas was conducted. This amendment does not comply fully with the specific capability and suitability analysis now required in 36 CFR 219.12, nor does it include a detailed economic analysis. The amendment establishes long-range goals and objectives for the various land allocations made in the plan. It does not identify specific management practices for implementation. Because the amendment establishes land allocations but does not establish specific management practices for implementation, detailed monitoring requirements are not identified.

All projects begun after adoption of the amendment will be evaluated in terms of the specific requirements of Sections 6(g)(3)(E) and (F) of NFMA to insure full compliance with that portion of the Act using the Forest Service NEPA process.

The Siskiyou National Forest is beginning preparation of a Forest Land and Resource Management Plan (Forest Plan) following the specific requirements of 36 CFR Part 219. This amendment will be effective until the time the FEIS for the Forest Plan is filed.

Section IV of the Final Environmental Impact Statement describes five alternatives. They differ primarily in the location of land allocation and the level of providing various goods and services. Alternative D will not be the least expensive to implement, but it is considered to be the most responsive to the social and economic needs of the local and national publics.

(over)



Alternative D has been determined to be environmentally preferable to the other alternatives considered because it will provide a balance of environmental protection as well as goods and services for the American public. Specifically, it will provide wildlife habitat diversity; maintain anadromous fish habitat (with provisions that seek to improve fish habitat); maintain water quality; reduce erosion and sediment delivery from current levels; maintain and increase recreation opportunities; and protect scenic quality in identified high use areas. In addition, Alternative D responds to the President's stated emphasis for wilderness and increased timber production.

RARE II designated Roadless Area 6,707 (950 acres) in this Unit for further planning. Since it is contiguous with approximately 39,400 further planning acres on the Six Rivers National Forest, the land allocation will be decided in conjunction with the 39,400 acres in the Six Rivers Forest Land and Resource Management Plan.

Implementation of this amendment will not take place until January 19, 1980.

This decision is subject to administrative review pursuant to 36 CFR 211.19. A notice of appeal must be filed with the Regional Forester within 45 days from the date of this record of decision.

*for James J. Torrence*  
R.E. WORTHINGTON  
Regional Forester  
319 S.W. Pine Street  
Portland, OR 97208

December 5, 1979



UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

Siskiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 97526

1950  
November 13, 1979



Dear Reviewer:

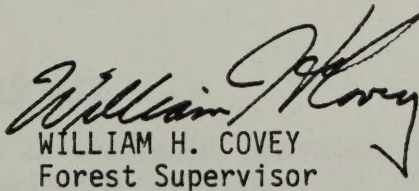
Under the provisions of Section 102(2)(C), Public Law 91-190, the National Environmental Policy Act of 1969, we have prepared a Final Environmental Statement on the proposed Land Management Plan for the Chetco-Grayback Planning Unit, Siskiyou National Forest, Oregon.

This Statement evaluates five land management plan alternatives for approximately 464,712 acres of National Forest in southwestern Oregon. A preferred alternative is indicated.

Public and internal review of the Draft Statement resulted in significant revisions to all Alternatives. A list of the major changes can be located on pages iii and iv.

Acreages and resource data in the Final Environmental Statement are for National Forest Land only.

Sincerely,

  
WILLIAM H. COVEY  
Forest Supervisor

Enclosure



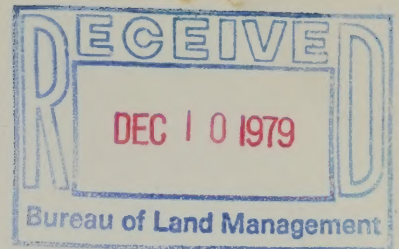




## FINAL ENVIRONMENTAL STATEMENT

USDA-FS-R6-FES-(Adm) 79-2

CHETCO-GRAYBACK LAND MANAGEMENT PLAN  
JOSEPHINE AND CURRY COUNTIES, OREGON  
DEL NORTE COUNTY, CALIFORNIA



HD  
243.07  
S57  
1979

## Lead Agency:

USDA - Forest Service  
P.O. Box 440  
Grants Pass, Oregon 97526

## Responsible Official:

(For National  
Forest Lands)

R.E. Worthington, Regional Forester  
Pacific Northwest Region  
U.S. Forest Service  
P.O. Box 3623  
Portland, Oregon 97208

## For further information contact:

John Millet  
Watershed Staff  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526  
(503-479-5301)

Abstract:

The Environmental Statement describes five alternatives pertaining to the land and resource management of the 464,712 acre Chetco-Grayback Planning Unit on the Siskiyou National Forest. The Forest Service preferred alternative is identified and the rationale for its selection is discussed. It also discusses the estimated effects of implementing each alternative.

Timing and Right of Appeal:

The approval of a Forest Plan, revision, or significant amendment is the only decision subject to administrative review. (CFR 219.8) A notice of appeal must be filed within 45 days from the date of the Record of Decision. (36 CFR 211.19)







FINAL ENVIRONMENTAL STATEMENT

USDA-FS-R6-FES-(Adm) 79-2

SUMMARY

CHETCO-GRAYBACK LAND MANAGEMENT PLAN

Prepared in accordance with Section 102 (2)(c) of Public Law 91-190  
The National Environmental Policy Act of 1969

Type of Action: Administrative

Responsible Federal Agency:

USDA - Forest Service  
P.O. Box 440  
Grants Pass, Oregon 97526

Responsible Official:

(For National  
Forest Lands)

R.E. Worthington, Regional Forester  
Pacific Northwest Region  
U.S. Forest Service  
P.O. Box 3623  
Portland, Oregon 97208

For further information contact:

John Millet  
Watershed Staff  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526  
(503-479-5301)

Date of Transmission to EPA and the Public: Draft November 21, 1978  
Final DEC 5 - 1979

- I. The proposed action consists of developing and implementing a plan for the 464,712 acre Chetco-Grayback Planning Unit on the Siskiyou National Forest. The Unit is located about 5 air-miles east of the coastal town of Brookings in Curry County, Oregon. The eastern part of the Unit is located around the Cave Junction and O'Brien area in Josephine County, Oregon. South of Cave Junction, the Unit extends into Del Norte County, California.



This plan includes consideration of the guidelines set forth in the interim directions in FSM 1920, issued to implement the National Forest Management Act (PL 94-588), and is determined to be consistent with those guidelines. This plan will be in effect until it is reviewed and, if necessary, revised as soon as practicable under future final guidelines.

- II. The Forest Service examined five alternatives for the Planning Unit. Although there are an unlimited number of possibilities, these alternatives were selected and evaluated because they represent a wide range of land management options. The general criteria used in the evaluation were existing resources, land capabilities, social and economic values, environmental impacts, public meeting, and an alternatives brochure.

Alternative A: This is the present situation/no change alternative. Basically existing land management trends continue in the Unit.

Alternative B: This is one of three amenity-oriented alternatives. Under it, large areas as seen from the Illinois River, as well as Roadless Area 6184, were allocated to dispersed recreation.

Alternative C: The area southeast of the present wilderness would be designated as dispersed recreation area where harvest activities would be modified. Also, two dispersed recreation areas would be established where primitive conditions would be maintained.

Alternative D: This alternative is a commodity-amenity blend. It provides for a variety of uses and activities. Remote, near natural lands would be maintained along with a high level production of wood fiber. This alternative has been selected as the preferred alternative. It provides adequate protection to all available resources.

Alternative E: Nearly 79 percent of the Unit is allocated to commodity production. Existing statutory and administrative allocations to Wilderness, Wild River, Scenic River, Recreational River, and Botanical Areas are retained. Alternative E is the same as Alternative A, except visual constraints have been waived.

### III. Major Changes or Revision from the Draft Statement

Due to the filing of the Final Environmental Statement for the Roadless Area Review and Evaluation (RARE II) study, a thorough review of public comments to the draft statement, and direction received from a management review, Alternatives A, B, and C received some major allocation changes. These changes are as follows:

Alternative A: This alternative has been changed to "no action/no change." It is based on current Ranger District Multiple Use Plans and current long-range resource plans. Those areas allocated to a deferred status originally, have been placed in Management Area 1.

Alternative B: This alternative, as presented in the DES, was a max-wilderness proposal, with all roadless areas placed in Wilderness. This has been changed as follows. Roadless Area 6176 and the northern part of 6709, where it



contains the Illinois River, were placed in Management Area 2, dispersed recreation. Roadless Area 6184, Mt. Emily, was also placed in a dispersed recreation allocation. A major portion of B6701 (Siskiyou) was placed in dispersed recreation. All other roadless areas were placed in Management Area 1.

Alternatives C and D: A major portion of B6701 (Siskiyou) was placed in dispersed recreation.

Alternative E: Visual constraints were waived, allowing a six percent increase in timber harvest.

With the updating and changes made in land allocations and further refining of the computer models used to determine output allocations, some of the outputs have changed.

#### IV. Comments on the Draft Environmental Statement were received from the following:

##### Federal Agencies

U.S. Department of Agriculture, Klamath National Forest  
U.S. Department of Agriculture, Office of the Secretary, Office of Equal Opportunity  
U.S. Department of Agriculture, Soil Conservation Service  
U.S. Department of the Army, Portland District Corps of Engineers  
U.S. Department of Energy, Bonneville Power Administration  
U.S. Department of Energy, Region X  
U.S. Department of Housing and Urban Development  
U.S. Department of the Interior, Office of the Secretary  
U.S. Department of Transportation, Federal Highway Administration, Region IX  
U.S. Department of Transportation, Federal Highway Administration, Region X  
U.S. Environmental Protection Agency, Region X  
U.S. Federal Energy Regulatory Commission, Advisor on Environmental Quality  
U.S. Federal Energy Regulatory Commission, Regional Engineer

##### State Agencies

Division of State Lands  
Office of State Forester  
Oregon Department of Economical Development  
Oregon Department of Fish and Wildlife  
Oregon Department of Geology and Mineral Industries  
Oregon Department of Land Conservation and Development  
Oregon State Parks and Recreation  
Resource Agency of California

##### Local Government

Curry County Soil and Water Conservation District  
Josephine County Board of Commissioners

##### Organizations

Cascade Holistic Economic Consultants (CHEC)



## Organizations cont'd

Defenders of Wildlife  
Del Norte Municipal League  
Friends of Six Rivers Alliance (FOSRA)  
Headwaters  
Industrial Forestry Association  
International Snowmobile Industry Association  
Mazamas  
North West Timber Association  
Oregon Council of Rock and Mineral Clubs, Information Officer  
Oregon Council of Rock and Mineral Clubs, President  
Rogue Group Sierra Club  
Southern Oregon Resource Alliance  
Takilma Citizens Action Committee  
Takilma Community Association  
Wildlife Management Institute

## Individuals

Ben Baker  
Stephen C. Bates  
Tom E. Dernn  
Scott Cummings  
Kenneth H. Glasgow  
Cecelia D. Haines  
Kurt P. Herzog  
David Hough  
Ogden Kellogg, Jr.  
Mark M. Kelz  
Leta Marchington  
Stan Marchington  
Bill Meyer  
Mr. and Mrs. W. B. Newby  
Bob Powne  
Wayne Rolle  
Fred Sawyer  
Joseph C. Schott  
Jameson D. Selleck  
Veva Stansell  
Larry and Ofelia Svart  
William J. Turmock  
Elaine Zablocki  
Marian A. Zimmerman

## Businesses

Atlantic Richfield Company, Public Lands Coordinator  
Inspiration Development Company  
Rough and Ready Timber Company

Vicinity Map

CHETCO-GRAYBACK

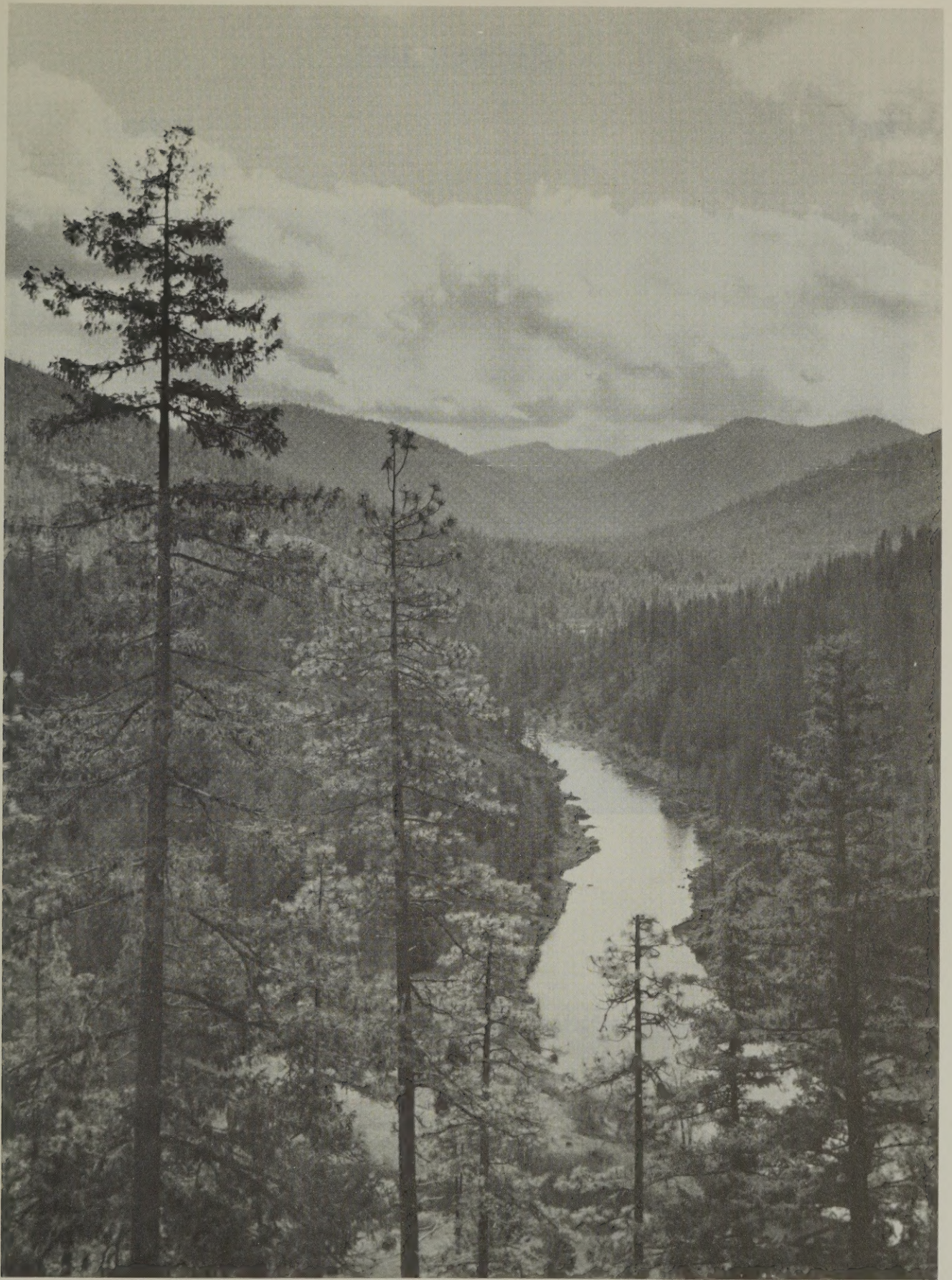
PLANNING UNIT











Illinois River





Illinois Valley



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Brookings Harbor at Mouth of Chetco River





## I. INTRODUCTION

During the late 1800's, it became alarmingly apparent that the natural resources in this country were being uncontrollably exploited. The conservation movement had its beginning during this period and their efforts contributed significantly to the establishment of national forests and park systems. Management guidelines established by the Act of June 4, 1897, provided for improvement and protection of forests, to ensure favorable water flows and to furnish a continuous supply of timber.

During the ensuing years the forests were managed under the concept of the greatest good to the greatest number of people over the long run. Congress passed the Multiple Use - Sustained Yield Act in 1960, which provided that the national forests be administered for recreation, range, timber, watershed, and wildlife and fish. Early conservation leaders had previously recognized wilderness as a resource and made provisions for retaining some land of wilderness character. This Act provided for maintenance and establishment of this type land. Congress passed legislation in 1964, to manage this administratively classified land as wilderness and made it a part of the National Wilderness Preservation System.

In 1969 the National Environmental Policy Act (NEPA) was passed to ensure that all resources, including the wilderness resource, would be given appropriate consideration relative to their potential values. In response to this act, and other legislation, during the early part of this decade (1970's) the Forest Service inventoried all of the roadless or undeveloped areas of 5,000 acres or more in the National Forest System. Also included were smaller areas adjoining existing wilderness and primitive areas. This operation was referred to as the RARE (Roadless Area Review and Evaluation) process and was the first phase in selecting high quality areas to be studied for inclusion in the National Wilderness Preservation System. NEPA also required environmental statements written on all proposed major federal actions affecting the environment. Current Forest Service policy requires Environmental Statements be filed before undertaking any development activities, such as timber harvest or road building, which would change the wilderness character of any of the areas included in the Roadless Area Inventory. A Final Environmental Statement covering these selected study areas was filed with the Council on Environmental Quality in October 1973.

Review of RARE I, as it is now referred to, led to criticism that it did not direct sufficient attention to National Grasslands or to National Forests in the East. Some significant areas in the West also were overlooked. A second inventory, RARE II, was begun in 1976 to correct these deficiencies.

RARE II developed a comprehensive inventory in maps and files of all areas in the National Forest System that meet minimum criteria as wilderness without considering whether the areas should be classified as wilderness or not. This inventory was made available to the public at 227 workshops across the nation, conducted in the summer of 1977 and attended by about 17,000 individuals.

The public was encouraged to review the initial inventory. Recommendations for additions and deletions to the inventory were accepted at the workshops and received by mail. This public response was reviewed and the initial inventory was adjusted.



The inventoried areas were evaluated and analyzed for alternative ways to round out the National Wilderness Preservation System for lands administered by the Forest Service. This analysis consisted of an assessment of environmental, social, and economic effects of various alternatives, as well as an evaluation of the "wilderness attributes" of the inventoried areas.

The National Environmental Policy Act process (in progress) will be used to analyze alternatives, allow for public comment, and provide the basis for final decisions on the allocation of the land areas.

Executive Orders 11988 and 11990, signed May 24, 1977, established new general policy and requirements for floodplain management and wetland protection.

The basic framework for Forest Service Land Management Planning is provided in the National Forest Management Act of 1976 (PL 94-588), the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) (PL 93-378) as amended, and other enabling legislation and implementing policies. Although Public Laws 94-588 and 93-378 are recent, land management planning on the National Forests is not new. It has evolved from early-day District plans, through a multiple-use plan phase, to the present.

Land management planning activities exist at all levels. Increased population, income, and economic activity has rapidly increased the demand for all forestland, rangeland, and inland water products. The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) directed the Secretary of Agriculture to develop a long-range program for the Nation's renewable resources that will assure an adequate supply of forest and range resources in the future, while maintaining the integrity and quality of the environment. This national program will be assessed and updated periodically.

The Forest Service Pacific Northwest Region Six has six planning areas which are geographic areas with similar physical economic and social characteristics. Area guides, which identify resource inventories and establish management direction, are developed and used to assess the economic, environmental, and social relationship of the National Forest to the Area. The guides are used to assign program and planning priorities at a Regional level.

The areas are divided into planning units of varied sizes, based on their manageability and social, political, and economical considerations. These areas provide land management allocations and other information needed for planning, budgeting, manpower, technical support, and other management activities. These unit plans are coordinated with the state planning goals, local counties, and other agencies.

Activity or project plans are the first step in implementing the objectives and direction resulting from the unit plan. Resource Management planning, such as a timber management plan, determines investment levels and resource outputs which will be produced by unit plan allocations. Resource inventories, assumptions, and analysis used in the unit plan can be monitored at this level. A periodic review of new information resulting from the activity level makes it possible to analyze and update the plan where necessary.

This plan includes consideration of the guidelines set forth in the interim directions in FSM 1900 issued to implement the National Forest Management Act (PL 94-588) and is determined to be consistent with those guidelines. This plan will be in effect until it is reviewed and, if necessary, revised as soon as practicable under future final guidelines.



Eight basic steps will be used to develop the Chetco-Grayback Planning Unit Environmental Statement:

1. Data gathering
2. Public meeting
3. Alternatives brochure
4. Draft Environmental Statement
- \*5. Final Environmental Statement
6. Land Management Allocation Decision
7. Implementation
8. Feedback

\*Currently at this step in the process.



## II. AFFECTED ENVIRONMENT

### A. Geographical Conditions

The Chetco-Grayback Planning Unit is located in the southern part of the Siskiyou National Forest in Southwestern Oregon. This Planning Unit extends from Gold Beach, Oregon, south to the California state line. The west boundary is approximately six miles from the coast, and the Unit continues east to Illinois Valley and the western slopes of the Siskiyou Mountains. Also, this Unit includes the headwater of the Illinois River in Northern California. The legal land description includes Townships 37, 38, 39, 40, and 41 South, and Ranges 5, 6, 7, 8, 9, 10, 11, 12, and 13 West, Williamette Meridian, in Oregon; and Townships 17, 18, and 19 North, Ranges 3, 4, 5, and 6 East, Humboldt Meridian, in California. The Planning Unit lies in Del Norte County in California and Curry and Josephine counties in Oregon. Figure A-1 shows the boundaries and location of this Planning Unit.

There are 489,437 acres within the boundaries of this Unit, of which 24,725 acres are privately owned and not subject to the planning process. Parts of five major coastal streams flow from this Planning Unit: Chetco, Illinois, Pistol, Smith, and Winchuck. The Illinois River has been recommended for inclusion to the National Wild and Scenic River System.

The Unit contains a number of different plants and animals. A few Special Interest Areas and the Kalmiopsis Wilderness have been reserved for their protection. Wheeler Creek Research Natural Area and Babyfoot Lake Unusual Interest Area-Botanical are included. Several other proposed areas (Figure L-1) have been selected for a comprehensive study. The Oregon Caves National Monument, administered by the National Park Service, is another feature of prominence near Cave Junction. Almost one-half of the Kalmiopsis Wilderness (88,675 acres) is located in the north-central part of this Unit.

The elevation ranges from 100 feet near the coast to over 6,000 feet in California. Moving east from the coast, the topography rises to approximately 5,000 feet at Pearsoll Peak, settles down to about 1,300 feet in Illinois Valley, and rises again to 6,000 feet on the western slopes of the Siskiyou Mountain range. Although the topography varies a great deal, some general descriptions can be applied to the Unit. The Kalmiopsis Wilderness is sparsely vegetated and has sharp ridges and steep sideslopes. The general surface configuration of the remaining area consists of densely vegetated flat ridgetops and convex sideslopes.

The average annual precipitation on this Unit varies from 50 inches near Cave Junction to 150 inches or more on the Upper Chetco River. Heavy precipitation is produced because of the west to east movement of the air masses over the Pacific Ocean before moving up into the mountains. The loss of moisture as the marine air moves inland over the mountains results in lower rainfall on the inland valleys. Heavy snowfall occurs in the higher elevations on the eastern boundary of the Unit, and some years it remains until early May. Snow is of little significance near the coast. The prevailing winds are from the southwest during the winter months. Wind velocity has been recorded at over 100 miles per hour along the coast; however, winds over the inland valleys rarely, if ever, attain that velocity. The influence of the marine air keeps the temperature very moderate in this Unit. Extreme temperatures of 90 degrees F or higher or 0 degrees F or lower are practically unheard of on the coast. Temperatures in the inland valleys range somewhere between 15 degrees F and 105 degrees F. Average temperature for the whole Unit is 53 degrees F.





Winter Drapery on Sucker Creek

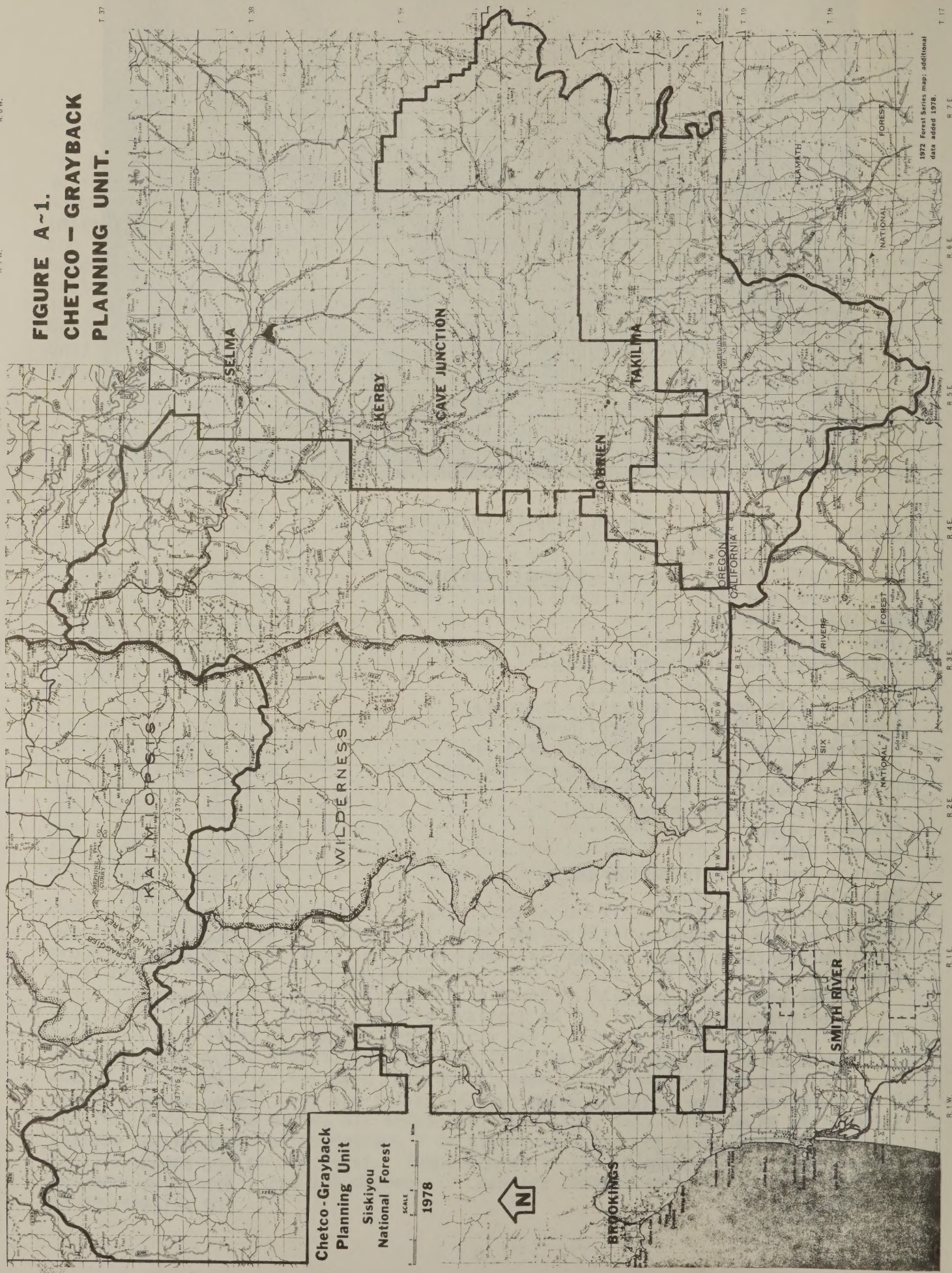
### General Statistics

National Forest Land	464,712
Other Ownerships (private)	24,725
Total Gross Planning Unit Acreage	489,437
Kalmiopsis Wilderness (Partial)	88,675
Babyfoot Lake Unusual Interest - Botanical	350
Wheeler Creek Research Natural Area	334
Proposed Hoover Gulch Research Natural Area	under study
Proposed Lemmingworth Gulch Research Natural Area	under study
Illinois River Scenic Study Section	5,597
Inventoried Roadless Area	171,058
Elevation Range	100-6,372
Average Side Slope	30-60%
Average Annual Precipitation Range	50-150+ inches
Mean Winter Temperature	43 degrees
Mean Summer Temperature	64 degrees
Frost Free Growing Season	120-300 days
Total Merchantable Timber Volume	4,535 MMBF
Roads:	
Miles existing (approx.)	790 miles
% of Planned System	58%
Trails:	
System Trails (approx.)	270 miles
% of Planned System	75%
Abandoned and/or Uninventoried	many miles
Streams and Rivers:	
Perennial (approx.)	798 miles
Intermittent (approx.)	1,506 miles
Class I	178 miles
Class II	202 miles



R 13 W R 12 W R 11 W R 10 W R 9 W R 8 W R 7 W R 6 W

**FIGURE A-1.  
CHETCO - GRAYBACK  
PLANNING UNIT.**



**Chetco-Grayback  
Planning Unit**  
Siskiyou  
National Forest

SCALE  
0 1 2 Miles  
1978



R 13 W R 12 W R 11 W R 10 W R 9 W R 8 W R 7 W R 6 W R 5 W R 4 W R 3 W R 2 W R 1 W  
T 37 T 36 T 35 T 34 T 33 T 32 T 31 T 30 T 29 T 28 T 27 T 26 T 25 T 24 T 23 T 22 T 21 T 20 T 19 T 18 T 17



## B. History and Cultural Resources

The Chetco-Grayback Planning Unit in southwestern Oregon is a very interesting and exciting region of the United States. In the last 130 years, most of man's activities, which included exploration, fur trapping, mining, settlement by immigrants, Indian wars, stage coaches, and the coming of the railroads, were recorded for posterity.

The first known inhabitants of this area were the Native American Indians. It is believed that they occupied this area for approximately 5,000 years. 1/ The tribes of this Unit were called Tolowa, Chetco, Tututni, Shasta Costa, and Takelmas. The latter, sometimes referred to as the Rogues, lived in the Rogue and Illinois Valley area. They did not produce any cultivated crops, but depended on their hunting skills to survive. The other four tribes lived on the coast from northern California to the southern Coos County line. They existed on wild vegetation, fish, and other marine life. The Indian population was small and dispersed among many isolated, secluded mountain valleys or near coastal estuaries. According to ethnographic and historic sources, the open, flat valley floors were the location of villages and intensive campsites. The surrounding hills, with their steep and frequently brushy ridges, were considered special use areas. Although there is little information on the tribes of the area, this pattern appears common throughout southwestern Oregon. 2/ Figure B-1 shows the tribal boundaries on this Planning Unit.

Previous archeological surveys in southwest Oregon indicate that the most common use and settlement patterns on the area concentrated the activities of the aboriginal people in the following areas: 1) stream margins, 2) stream confluences, 3) margins of the seashore, 4) open meadows, 5) small meadows on high ridges, 6) caves or cliff bases, 7) waterfalls and fisheries in streams, and 8) natural trails.

These same sources indicate several potential cultural resource types of archeological sites in this unit: 1) house pit village sites usually found near streams or rivers, 2) intensively occupied campsites on terraces above permanent streams or rivers, 3) small campsites adjacent to springs or small intermittent or permanent streams, 4) specialized rock structures on ridge tops, 5) rockshelters, 6) knapping sites, 7) food procurement sites, and 8) spirit quest sites. Known sites along the Illinois River below Deer Creek are believed to be Shasta Costa settlements of the typical coast Athabaskan group.

Walling reports that the first exploration of the area by a white man occurred in 1792 by an English navigator called Captain George Vancouver. 3/ Although the Spanish explorers had sailed the Oregon coast off Curry County since the 1500's, they had landed further north on the Umpqua River and had not investigated the Curry County shores. Probably the first immigrant from California to Oregon along the coast was fur trapper Jedediah Smith. In 1828, his party of 17 men had been ordered by the Spanish to get out of California, and he elected to travel the coast route, which was essentially untrailed except for Indian and animal paths or ocean beaches. During the journey, Indians attacked him in the night, and only three escaped to Fort Vancouver.

1/ Mack, Joanne M., 1975. Archeological Survey of the Leuzenger Wood Tract, Josephine County, Oregon.

2/ Ibid.

3/ Walling, A.G., 1884. History of Southern Oregon, Comprising Jackson, Josephine, Douglas, Curry, and Coos Counties. Portland, Oregon.



During 1827, Peter Ogden led a party of Hudson Bay Company trappers into the Rogue River area near Grants Pass. Company records indicate that 15 brigades of trappers passed through the Rogue Valley between the years of 1825 and 1843. 1/ In the years prior to 1851, many gold miners passed through the Rogue Valley and the Planning Unit on their way to the rich gold strikes in California. In 1850 the first gold was discovered on Josephine Creek by a man named Rollins. It is credited with being the first gold mining in the State of Oregon. 2/ This strike marked the beginning of the settlement of what is now Josephine County. The county was later named after Rollins' daughter. Many mining settlements were established near the more significant strikes. Little remains of the two town sites on Sucker Creek. The Indians burned the first one at the mouth of Yeager Creek in 1855. A new town was built in 1856 at the mouth of Bolan Creek after the Indian war was over. As the mineral disappeared, so did the towns.

Other early communities that were known to exist on the Planning Unit were Brown City (T. 41 S., R. 8 W., Sec. 2) located on Page Creek, Grass Flat which was located three miles south of Browntown, and Sebastopol or Canyon City on Canyon Creek which is a tributary of Josephine Creek. O'Brien, Waldo, Browntown, Allentown, Tigertown, and Takilma, which were located adjacent to the Planning Unit, slowly disappeared as the minerals were exhausted or became uneconomical to work. On the western portion of the Unit, the mouth of the Chetco River was first settled in 1853.

The Indians in the area objected to the coming of the white man and let him know he was not welcome in their territory; however, animosities were not aroused until the immigrants began settling the sites (canoe landings, dwelling sites, stream crossings) used for generations by the Indians. The Indians living in this area were much feared by the white man because they were more savage and warlike than any other southern Oregon tribe. Murder, massacres, and battles occurred after the white man began to settle the area, and lasted until the Battle of Big Meadow in 1856. The Indians were rounded up and sent to the reservations at Grand Ronde and Siletz.

The settlers and miners were dependent on Crescent City, California, for all their supplies, which were hauled in by packtrain. By 1860 a wagon road was opened to this port. Eventually there were four routes to Crescent City. Parts of the Wimer Road, which traverses the Unit, still exist today. The stone corral at the foot of Oregon Mountain and Baine Station at the top of the mountain were established as relay stations for fresh horses and new drivers. The railroad arrived in Grants Pass in 1883 and the wagon supply lines were no longer needed. Surveys for a railroad never materialized across the Planning Unit. At Grants Pass it was terminated at Waters Creek, and from Crescent City it ended at Smith River. The line, now abandoned, was eventually extended to Brookings, Oregon, but this was for logging purposes and not to connect Josephine County, Oregon, with Del Norte County, California.

The Oregon Caves were discovered in 1873 by Elijah Davidson. 3/ As the story goes, Elijah was deer hunting in the area and his dog cornered a bear in the cave. The Oregon Caves became a National Monument by President Taft's proclamation dated July 12, 1909.

1/ Sutton, Jack, 1959. The Pictorial History of Southern Oregon and Northern California.

2/ U.S. Geological Survey, 1969. Mineral and Water Resources of Oregon, Bulletin 64.

3/ Grants Pass Courier, April 13, 1935. Golden Anniversary Edition.



The Siskiyou National Forest Reserve was established in October 1906; however, it was not a popular decision in either Curry or Josephine County where the public land had never had any management regulations. Ranger Stations were established on this Planning Unit at Page Creek on what is now Illinois Valley District, and at Westmoore on the Winchuck River a short distance downstream from Bear Creek. This was headquarters for the Chetco District until it was moved to Brookings in 1926. Management activities during this period were centered around controlling fires, boundary surveys, inventories, trail and telephone line construction, and maintenance.



Pack Train on Trail to Oregon Caves

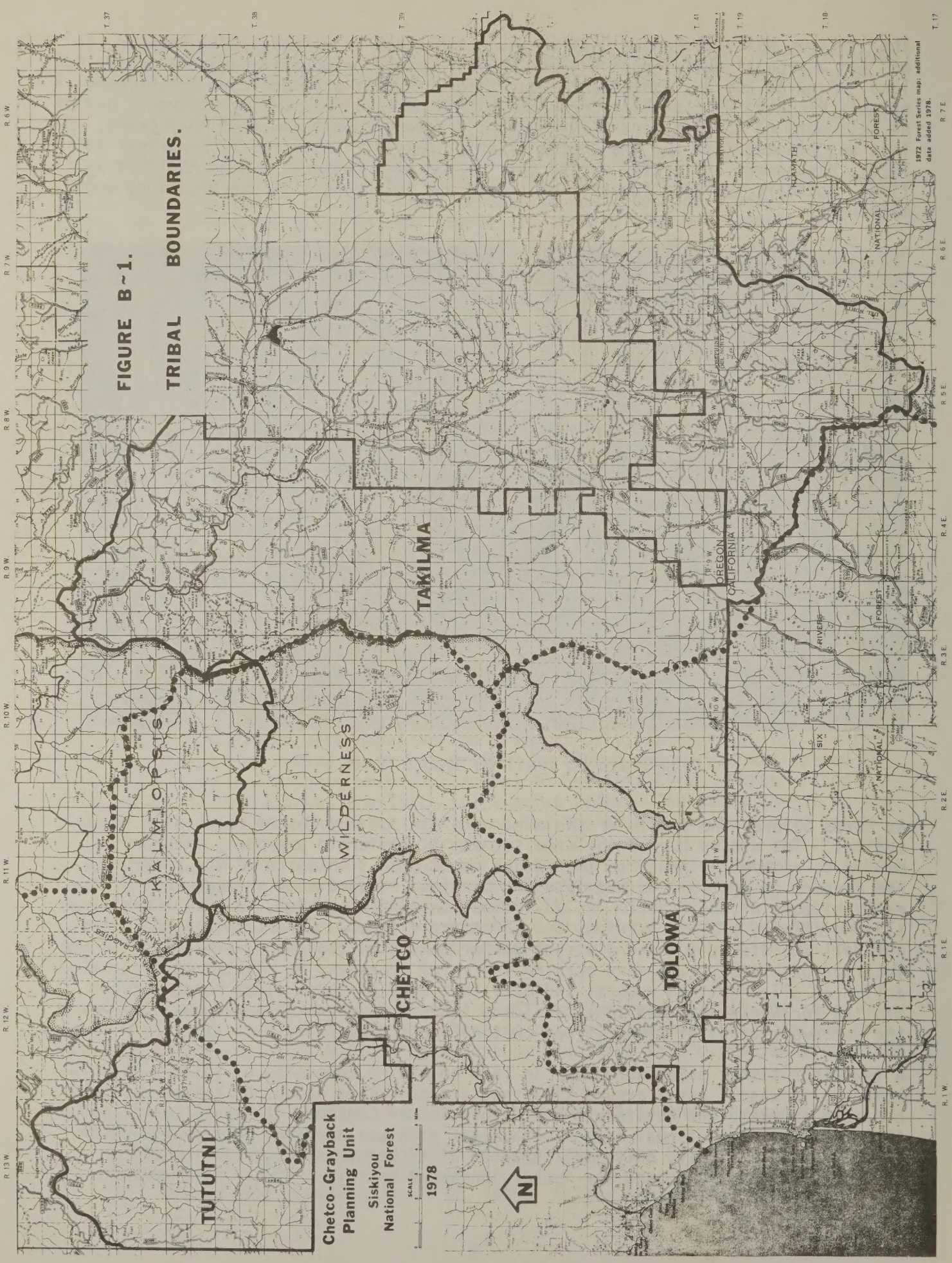
As noted before, the people of the area were against any forest reserve or regulations. The miners burned the area to make it easier to prospect; ranchers burned to remove the brush so that grass would grow. In spite of the efforts of the Rangers to control and regulate the burning, it continued through most of the early history of the Forest. As an indication of the problem, in 1917 there were 173 incendiary, 6 brush burning, and 28 camper's fires. Unfortunately this does not tell the story, for one District Ranger mentioned that many large fires in the interior of his District were burning low value areas and he elected to take no action at all. Written reports indicate that some of these fires burned uncontrolled for weeks and even months. These fires are undoubtedly responsible for the patchwork array of timber types on the Forest today.

A few minor timber sales were made in 1910 to mining companies on this Unit; however, it wasn't until around 1917 that a significant amount of timber was sold on Jacks Creek to the California and Oregon Lumber Company. It wasn't until about 1922 that the first formal timber management plan was approved by the Washington Office. Comparatively, only small amounts of timber were cut until the mid or late 1950's when the demand for lumber increased rapidly. Timber sale revenue



FIGURE B~1.

TRIBAL  
BOUNDARIES.





built most of the access roads on the Forest that exist today. Since the Siskiyou National Forest has steep topography and unstable soil conditions, it made an ideal area to analyze and study the use of helicopters for logging. The Grayback Skylift Helicopter Sale, dated June 30, 1971, was one of the first sales in Region 6 and in the United States designed for helicopter yarding.

On September 9, 1942, during World War II, the Japanese dropped a bomb near Wheeler Creek (T. 40 S., R. 12 W., Section 22) southeast of Mt. Emily in southwestern Oregon. The seaplane which was launched from a submarine dropped an incendiary bomb that started a small fire. The Japanese planned to set the forest on fire, but the blaze was quickly controlled.

Other sites of possible historical and/or archeological interest are listed in the Appendix. This information was obtained from various Forest Service employees and others knowledgeable about specific sites. Additions to the current inventory will be made on a continuing basis, as information from project planning and from other resources becomes available.

A historical overview was written for the Forest during 1978, entitled "Cultural Resource Overview of the Siskiyou National Forest" by Stephen Dow Beckham. Although the nature and distribution of many historic and prehistoric sites are unknown today, the archeological overview identifies what little is available about the prehistory of the coastal zone and interior of Southwest Oregon and Northern California.

In compliance with Section 106 of the National Historic Preservation Act of 1966, the National Register of Historic Places as listed in the May 2, 1978, issue of the Federal Register was consulted. It was determined that no National Register properties are affected by the proposed action. Indeed, no National Register properties or recommended additions are within the Unit boundaries. Further, the proposed action will serve to maintain the opportunity for discovery of any sites, if any exist.

The Oregon and California State Historical Preservation Officers have been consulted concerning the possibility of any historical properties in the Unit and the policies relating to ground-disturbing activities. Copies of the return correspondence can be found in the Appendix.

American Indian Religious Freedom Act of 1978 requires that the rights of the American Indians to believe, express, and exercise their traditional religion be protected and preserved. This includes but is not limited to access to sites, and use and possession of sacred objects.

### C. Socio-Economic

The area of substantial socio-economic influences for the Planning Unit includes both Curry and Josephine Counties, Oregon. Nearly 93% of the Unit lies within these two counties, and the Unit provides substantial benefits to each. Although more than 7% of the Unit, or 33,604 acres, is within the boundaries of Del Norte



County, California, many of the benefits derived from these lands are enjoyed by Josephine County, Oregon. For example, virtually all of the timber harvested on the California land is hauled to and processed in Josephine County; however, Del Norte County does receive the payments in lieu of taxes on the Siskiyou National Forestland in that county.

Forestlands are basic to the economy in each county and to the life styles of the residents in each county. The dominance of the forest resource can be seen in the fact that forest land accounts for approximately 94 percent of the land in Curry and Josephine Counties.

Table C-1 shows that publicly-owned land accounts for a high proportion of the land in both Josephine and Curry Counties, and throughout Northern California.

Table C-1. Land Ownership in Curry and Josephine Counties and Northern California (%) 1/ 2/ 3/

Ownership	Curry	Josephine	Northern California <u>4/</u>
Federal Government	65%	68%	44%
Forest Service	(59%)	(39%)	(35%)
Bureau of Land Management	( 6%)	(29%)	( 7%)
Other	( 5/)	( 5/)	( 2%)
State Government	1%	1%	2%
Local Government	5/	5/	5/
Private	34%	30%	54%
Total	100%	100%	100%

1/ Siskiyou National Forest.

2/ Oregon State University Extension Service, 1973. Resource Atlas: Josephine County.

3/ Oregon State University Extension Service, 1973. Resource Atlas: Curry County.

4/ Statistics for entire Northern California Planning Area of which Del Norte County is a part. (Source: Northern California Planning Area Guide, U.S. Forest Service.)

5/ Less than 1%.

Population data in Table C-2 shows recent population levels, growth trends, and population densities for the three counties, two states, and the entire United States. These statistics indicate that the two coastal counties, Curry and Del Norte, have low population densities and very low to negative population growth rates. In contrast, Josephine County has a higher population density, and its rapid population growth is nearly three and one-half times the rate for the entire United States.



Table C-2. Population Estimates for Curry and Josephine Counties, Oregon, and Del Norte County, California. 1/ 2/ 3/

Area	1960	1970	1975 <u>4/</u>	6/1/77	Percentage Change	Population Density
					1960-1977 <u>4/</u>	(Persons/Sq Mile <u>2/</u> ) 1975 <u>4/</u>
Curry	13,983	13,006	14,100	14,500	3.7	9.0
Josephine	29,917	35,476	45,600	50,900	70.1	30.0
Del Norte	17,771	14,580	15,700		(-)11.7	15.7
Oregon <u>5/</u>	1,769	2,091	2,299	2,396	35.4	24.0
California <u>5/</u>	15,717	19,958	20,933		33.1	133.9
United States <u>5/</u>	180,671	204,879	214,000 <u>6/</u>		18.4	59.2

1/ Source: U.S. Bureau of Census Reports for years indicated.

2/ Source: Center for Population Research and Census. Population Estimates of Counties and Incorporated Cities of Oregon. Portland State University.

3/ Oregon State University Extension Service, 1973. Resource Atlas for the counties indicated.

4/ 1974 estimates for Del Norte County and California.

5/ Thousands.

6/ Approximate.

Table C-3 indicates that the population distribution in the three counties is much more rural and much less urban in character than national and state populations. This is particularly true of the two coastal counties.

Table C-3. Percent of Population Living in Urban and Rural Areas, 1970. 1/

Area	% Urban	% Rural (Non-Farm)	% Rural (Farm)
Curry	20.9	69.7	9.4
Josephine	52.2	41.4	6.4
Del Norte	38.9	59.0	2.1
Oregon	67.1	26.5	6.4
California	90.9	8.2	0.9
United States	73.5	22.4	4.1

1/ Source: U.S. Bureau of Census, 1972. General Social and Economic Characteristics, 1970 - Oregon.



Racially, the three counties have a very high percentage of Caucasians in the population. Blacks, Spanish-speaking people, American Indians, and other minority groups account for only 1% of the population in Curry and Josephine Counties, and about 6% of the population in Del Norte County. 1/ 2/ 3/

Table C-4 shows median income and the percentage of families below the low income level in the three counties, in the two states, and in the entire United States. The figures indicate that median income averages in the counties range from 78% to 93% of the U.S. average, and that the percentage of families below the low income level is generally higher than national and state averages.

Table C-4. Family Incomes, 1969, 1976. 1/ 2/

Area	Median Income (\$)		% Less Than \$7,000		% Below the Low Income Level
	1969	1976	1969	1976	
Curry	8,543	11,936	36.7	41.4	11.6
Josephine	7,453	10,413	46.1	48.9	13.9
Del Norte	8,917		34.3		10.2
Oregon	9,487	13,750	30.9		8.6
California	10,729		27.0		8.4
United States	9,586		32.2		10.7

1/ Source: U.S. Bureau of Census. County and City Data Book, 1972.

2/ Source: Socio-Economic Indicators, Department of Human Resources, 1977.

Table C-5 indicates the age distribution of the population in each county. The Josephine County statistics, showing a higher median age and a relatively high proportion of persons age 65 and over, are significant. It is largely the result of retired persons immigrating to the county. It also partially accounts for the relatively low income levels shown in Table D-4.

Table C-5. Population Ages, 1970, 1975. 1/ 2/

Area	Median Age	Less Than 18 Years (%)	18-64 Years (%)	65 Years and Over (%)
Curry	31.8	33.9	55.2	10.9
Josephine	35.6	32.3	52.0	15.7
Del Norte	29.2	36.2	54.3	9.5
Oregon	29.4	34.0	55.1	10.2
California	28.4	33.4	57.5	9.1
United States	28.3	34.4	55.7	9.9

1/ U.S. Bureau of Census. County and City Data Book, 1972.

2/ Center for Population Research and Census, Population Projection and its Counties, 1975-2000, Portland State University.

1/ Source: U.S. Bureau of Census: County and City Data Book, 1972.

2/ Oregon State University Extension Service. 1973. Resource Atlas of Counties indicated.

3/ State of California Employment Development Department. 1975.



Median education levels for each of the three counties are very near the national and state averages, or just over 12 years of schooling. Less than 2.5% of the counties' population has had less than five years of formal education, compared to the national average of 5.5%. They also have about 7% of the population with four or more years of college, relative to the national average of 11.8%. 1/

Table C-6 shows several variables relating to the housing situation in the three counties, relative to state and national averages. It indicates a higher percentage of owner-occupied houses, although the median value of those houses tends to be lower than both state and national averages.

Table C-6. Housing, 1970. 1/

Area	% Owner-Occupied	Median Value, Owner-Occupied Single Family Dwellings (\$)	% Lacking Some or All Plumbing Facilities
Curry	69.3	15,023	3.9
Josephine	73.1	13,657	4.1
Del Norte	64.4	13,491	1.7
Oregon	66.1	15,563	2.6
California	55.0	23,107	1.5
United States	62.9	17,130	5.5

1/ Source: U.S. Bureau of Census. County and City Data Book, 1972.

Table C-7 indicates that local governments in the three counties received approximately 50% of their revenues from state and federal sources in 1967. This rate was about 50% higher than state and national averages. Thus, the local county governments are relatively dependent on state and federal funds.

Table C-7. Local Government Finances, 1967. 1/

Area	Total (Million \$) <u>2/</u>	% Intergovernmental <u>2/</u>
Curry	5.7	56.0
Josephine	11.5	50.0
Del Norte	8.7	45.9
Oregon	607.7	31.6
California	8,457.7	34.9
United States	58,235.4	34.7

1/ Source: U.S. Bureau of Census. County and City Data Book, 1972.

2/ Excludes interlocal revenue transfers.



Receipts from National Forest and Bureau of Land Management lands provide major portions of county revenues in all three counties. The relative importance of these revenues to specific programs within each county's budget is even higher. These payments are made in-lieu-of taxes and are based on set percentages of net revenues from the federal lands. Counties receive 25% of revenues from National Forest lands and 50% of revenues transferred to the BLM from O&C land managed by the Forest Service (an additional 25% of O&C formula funds are plowback funds for resource management).

Table C-8 indicates the relationship between the total revenues of Curry and Josephine Counties in recent years, and the revenue from National Forest and BLM lands. Del Norte County also receives a relatively small amount of in-lieu payments (roughly \$100,000 annually in recent years).

Table C-8. Curry and Josephine County Revenues, 1972-73, 1973-74, 1974-75, 1/ 2/ 3/

	1973 <u>4/</u>	1974 <u>4/</u>	1975 <u>4/</u>
Curry County:			
National Forest Receipts	1,288,100	1,807,900	1,804,200
O&C Receipts <u>5/</u>	<u>1,382,500</u>	<u>1,722,500</u>	<u>2,109,300</u>
Total Federal Land Receipts	2,670,600	3,530,400	3,913,500
Total County Receipts	5,368,300	5,551,300	6,937,300
% National Forest Receipts of Total	24.0%	32.6%	26.0%
% O&C Receipts of Total <u>5/</u>	25.7%	31.0%	30.4%
Total Federal Land Receipts	49.7%	63.6%	56.4%
Josephine County:			
National Forest Receipts	713,900	976,200	959,700
O&C Receipts <u>5/</u>	<u>4,563,100</u>	<u>5,700,600</u>	<u>6,981,000</u>
Total Federal Land Receipts	5,277,000	6,676,800	7,940,700
Total County Receipts	9,557,200	12,848,800	15,651,400
% National Forest Receipts of Total	7.5%	7.6%	6.1%
% O&C Receipts of Total <u>5/</u>	47.7%	36.8%	38.5%
Total Federal Land Receipts	55.2%	44.4%	44.6%

1/ Source: Curry County Treasurer's Office.

2/ Source: Josephine County Clerk's Office.

3/ Numbers rounded.

4/ Fiscal Years (e.g. FY 1975: July 1, 1974 to June 30, 1975).

5/ Includes O&C-formula receipts from both BLM and Forest Service-managed lands.



The Siskiyou National Forest, covering 59% of Curry County, 36% of Josephine County, and 5% of Del Norte County, provides a wide variety of benefits. Some are economic in the form of employment, monetary flows, and county revenues. Other benefits, social in nature, are no less real. These include opportunities for pursuit of hobbies, recreation, and social interactions with families and friends. Although residents of the three counties (and particularly Curry and Josephine Counties) enjoy most of both the economic and the social benefits, benefits accrue to persons and society at regional and national levels.

Table C-9 compares the general composition of the labor force in the three counties with state and national averages. (Since all categories are not included and some categories overlap, the numbers do not total 100%.) The statistics suggest that the counties tend to differ from state and national averages in that females and white collar workers account for a substantially smaller percentage of the labor force than those categories do in Oregon, California, or the entire United States. In contrast, workers in manufacturing industries account for a somewhat greater percentage of the labor force than they do either state-wide or nation-wide. The coastal counties, particularly Curry, differ more from state and national averages than Josephine County.

Table C-9. Some General Components of the Labor Force, 1970 1/ 2/ 3/

Area	% Manufacturing	% Wholesale & Retail	% Govt.	% Services	% Female	% White Collar
Curry	36.5	19.6	16.3	6.0	31.0	35.2
Josephine	24.8	22.2	16.5	8.0	34.5	42.6
Del Norte	27.3	20.2	20.9	8.6	33.9	40.0
Oregon	21.4	22.1	17.2	7.3	36.9	48.3
California	21.6	21.1	17.8	8.8	36.5	54.4
United States	25.9	20.1	16.1	7.7	38.1	48.3

1/ Source: U.S. Bureau of Census, County and City Data Book, 1972.

2/ Labor force, 16 years and older.

3/ Partial list of components.



Table C-10 shows the general components of the labor market in Curry and Josephine Counties for both 1970 and 1974. Large components in the two counties include lumber and wood products, trade, government, and self employed/agriculture/other.

← South Coast Lumber Co. Brookings, Oregon

Dan's Photo



Table C-10. Labor Market Analysis, Curry, Josephine, and Del Norte Counties, 1974-1977. 1/

Component	Curry County		Josephine County		Del Norte County
	1974	1977	1974	1977	Sept. 1977
Civilian Labor Force	5,780	5,850	17,040	20,220	7,475
Employment	5,250	5,250	14,980	17,950	6,875
Unemployment	530	660	2,060	2,270	600
% Unemployment	9.2%	11.4%	12.1%	11.2%	8.0%
Manufacturing	1,520	1,220	3,040	3,740	1,750
Lumber&Wood Products	1,350	1,100	2,140	2,720	1,600
Other	170	120	900	1,020	150
Non-Manufacturing	2,510	2,960	8,380	10,390	5,550
Trade	690	820	2,590	3,180	1,000
Government 2/	1,030	1,280	2,780	3,030	1,500
Services, Misc.	460	440	1,640	2,350	2,850
Other	330	380	1,370	1,830	200

1/ Source: State of Oregon, Employment Division, Department of Human Resources.

2/ Includes state, federal, and local educational.

While the civilian labor force has grown relatively rapidly in the interior county of Josephine, it has grown at only one-third the rate in the coastal county of Curry (Table C-11). It should also be noted that growth in total employment has nearly kept pace with the growth in the civilian labor in Josephine County. However, employment growth in Curry County has been only two-thirds of the growth rate in the civilian labor force.

Growth in non-manufacturing employment has been very strong in both counties. Manufacturing employment has grown relatively rapidly in Josephine County, but its growth has been weak to non-existent in Curry County. The self employed/agriculture/other component roughly followed the patterns for the manufacturing component.

Table C-11. Labor Market Dynamics, 1974-1977 1/

Component	Percent Change 1974-1977	
	Curry	Josephine
Civilian Labor Force	1	19
Employment	0	20
Manufacturing Employment	-20	23
Non-Manufacturing Employment	18	24

1/ Derived from Table C-10.



Unemployment, traditionally higher than state and national averages in Curry and Josephine Counties, averaged 8.8% and 11.2% respectively in 1977. <sup>1/</sup> The rate in Oregon during that year was 8.3%, while it was only 7.0% nation-wide. <sup>2/</sup> Seasonal variations tend to be substantial. Highest unemployment usually occurs from late November through March, while lowest unemployment occurs from June through August (Table C-12).

Table C-12. Employment Trends by Month, 1977. <sup>1/</sup>

Month	Unemployment Rate (Percent)		
	Curry County	Josephine County	Del Norte County
January	13.1	15.8	17.1
February	13.7	15.0	14.3
March	11.6	14.0	13.9
April	8.7	11.4	10.8
May	7.1	10.9	10.6
June	6.7	10.1	8.0
July	7.0	9.8	9.3
August	6.5	9.4	8.1
September	6.7	8.8	8.0
October	7.2	9.3	9.4
November	9.4	9.8	14.6
December	9.7	10.6	15.6
Average	8.8	11.2	11.6

<sup>1/</sup> Derived from State of Oregon, Employment Division, Department of Human Resources Statistics.

Several factors are responsible for the wide annual and seasonal variations in unemployment rates. Weather is an obvious factor for many economic activities which occur outdoors, especially logging and some types of recreation for example. However, economic factors generally are more important. The national demand for the products of the regionally dominant lumber and wood products industry tends to be highly sensitive to interest rate changes. The effect of high interest rates on the demand for wood products used in residential construction has been demonstrated in recent years. The large, sharp declines in 1973-74 quickly impacted raw material processing plants. Many local plants shut down and unemployment in the local industry reached high levels in 1974-75.

A "basic" industry is one which generates a net monetary inflow to a region from outside regions. They are essential for any local economy in our modern society. Employees of basic industries and their families require a large variety of goods and services. These needs create a demand for clerks in stores, gasoline station employees, doctors, dentists, and many other jobs. Most of this employment is labeled "non-basic" because it brings in very few net dollars from outside regions; most of the goods and services are consumed locally. It has been estimated that each 100 basic jobs will generate demand for as many as 200 or more non-basic jobs on a regional basis; however, this ratio varies considerably and is often much lower in small, rural economies.

<sup>1/</sup> Employment Division Labor Market Statistics.

<sup>2/</sup> Source: Statistical Abstract of the United States, 1975.





Commercial Fishing Boats in Brookings Harbor

In Curry and Josephine Counties, virtually all of the manufacturing, mining, agriculture, forestry, and fishery employment should be considered basic employment. In addition, a relatively small percentage of the employment in retail trade, services, and public administration should be considered basic employment. The remaining employment should be considered "non-basic."

Table C-13. Indicated Employment Multipliers (Approximate) <sup>1/</sup>

County	1960	1970	1974 (Est.)
Curry	1.6	2.0	2.1
Josephine	2.2	2.9	3.1

<sup>1/</sup> Estimated from Oregon State University Extension Service Resource Atlases and from Employment Division Labor Market Statistics.

Table C-13 indicates that the employment multiplier (total employment divided by basic employment) varies substantially between the counties and that the multiplier has been increasing since 1960. This is consistent with growth trends in the various components of the labor market for each county (Table C-11). That is, non-manufacturing employment (largely non-basic) has increased much more rapidly than manufacturing employment which is largely basic employment.

Although the relative importance of the lumber and wood products industry to the economy of each county has decreased somewhat in recent years, the industry remains the major base in both counties (Table C-14). It seems likely to remain the major base in the foreseeable future; however, it has been estimated that the



combination of a projected reduction in timber supply and productivity increases will cause a 45% employment reduction in the Pacific Northwest lumber and wood products industry (nearly 60% of this reduction would occur due to the productivity increases necessary for the industry to remain competitive). 1/ Over the long-term, even substantial increases in timber supply will not prevent employment decreases in the industry in southwestern Oregon. 2/

Table C-14. Estimated Direct and Indirect Impact of the Lumber and Wood Products Industry.

County	Lumber & Wood <u>1/</u> Products Employment	% of Total Employment	Estimated County Multiplier <u>2/</u>	% Dependent (Direct & Indirect)
Curry	1,100	18.8	2.1	39.5
Josephine	2,720	13.5	3.1	41.8
Sum/Average	3,820	16.15	2.7	40.6

1/ Table C-10.

2/ Table C-13.

The second largest and fastest-growing industry in both Curry and Josephine, the primary effect counties, is recreation and tourism industry. 3/

Table C-15 indicates that tourist expenditures in Curry County make a large contribution to the county's economy. The impact of growing tourist expenditures on employment in all Oregon coastal counties is indicated by the fact that the 16 year growth trend (1958-74) has been at the rate of nearly 7.5% compounded annually. 4/

Table C-15. Estimated Tourist Expenditures in Curry and Josephine Counties, 1977. 1/

Category	\$ Spent in Curry County & Josephine County <u>2/</u>
Out-of-State Tourists in Oregon (more than one day)	\$16,470,000
Out-of-State Non Tourist (visitors-business)	700,000
In-State Inter-County	22,600,000
In-State Intra-County	3,700,000
Total	\$43,470,000

1/ Source: Oregon State Highway Division. Based on tourist dollars spent by automobile drivers in the year 1977.

2/ Rounded to the nearest thousand dollars.

1/ Brian R. Wall. 1973. Employment Implications of Projected Timber Output in the Douglas-fir Region, 1970-2000. Pacific Northwest Forest and Range Experiment Station. Portland, Oregon.

2/ John H. Beuter, et al. 1976 Timber for Oregon's Tomorrow: An Analysis of Reasonably Possible Occurrences. Forest Research Laboratory - Oregon State University. Corvallis, Oregon.

3/ Josephine County Development Committee. 1968. 1967 OEDP Progress Report, Josephine County, Oregon.

4/ Daniel D. Oswald. 1973. Forest Resources and Forest Industrial Development in the Oregon Coastal Study Area, (unpublished report). Pacific Northwest Forest and Range Experiment Station.



Agriculture is the third leading income-producing industry of both Curry and Josephine Counties. The largest components of the industry in Curry County are specialty horticultural crops, dairy cattle, and beef/cattle operations. Dairy products are most important in Josephine County. Other important components include beef/cattle operations and field crops. The gross value of farm products sold increased at an average annual rate of 8% in Josephine County between 1966 and 1975, reaching \$9.1 million in the latter year. The growth rate for the same period in Curry County was 5%, reaching a level of \$3.8 million in 1975. 1/

Other sizeable industries contributing to the economic base in Josephine County include foot-loose industries (industries where factors of livability, climate, and desirable labor force characteristics are the primary considerations and distance from markets is of secondary importance). 2/ Growth in apparel, electronics, and machinery industries within this category has accounted for most of the industrial diversification in Josephine County within recent years. The food processing and mining/mineral industries, and state and federal government also contribute significantly to the Josephine County economic base.

The food processing and fishery industries, and state and federal government are other significant contributors to the Curry County economy.

#### D. Energy Resources

Hydro, geothermal, solar, wind, tidal, fossil fuel, wood, and nuclear energy sources are the probable power forms of the future. This Unit does not have any potential geothermal nuclear or tidal energy forms. Solar and wind energy sources have a seasonal possibility for use in the future on this Unit. However, many technological advances are necessary for this to become a reality. It is possible that low grade coal exists on this Unit, but Geologists estimate that the reserves would be low. Wood residues are utilized by local residents for firewood. At this time, it would not be economically feasible to use wood as a commercial energy source. There are no hydroelectric dams located on this Unit; however, several potential dam and reservoir sites are being considered within the Planning Unit. Sites listed by the U.S. Geological Survey (1969) include Lower Chetco River, Winchuck River, Sucker Creek, and Eight Dollar on the Illinois River. 3/ More recent information states Sucker Creek site has a potential of 3.6 MW, the Fall Creek site on the Illinois River has a power potential of 59 MW, and the Boulder Creek site on the Chetco River has a potential for 29 MW, assuming mean flow and 100 percent efficiency. 4/ Other potential sites reported by the Department of the Interior (January 31, 1979) are Redwood, Upper Chetco, Intermediate Chetco (all on the Chetco River), Clear Creek and Bald Mountain (both on the Illinois River) Wheeler Creek, Fourth of July Creek, and the East Fork Winchuck River. Five pumped-storage sites have been identified by the Corps of Engineers, including Bear Wallow (618), Buckskin Peak (619), Looking-glass Prairie (628), Pollywog Butte (628), Packsaddle Mountain (629), and Snow Camp (634). 5/ The potential reservoir sizes range from 150 to 720 acres with generating capacities of between 1000 MW and 5000 MW and storage ranging from 7,900 to 39,000 acre-feet. 5/

1/ Oregon State University Extension Service. 1973. Resource Atlases for Curry and Josephine Counties.

2/ Josephine County Development Committee. 1968 1967 OEDB Progress Report: Josephine County, Oregon.

3/ Oregon Department of Geology and Mineral Industries, Bulletin 64. Mineral and Water Resources of Oregon. A.E. Weissenborn, Ed. USGS, 1969.

4/ Letter from Henry W. Coulter, Acting Director USGS, Reston, Virginia.

5/ U.S. Army Corps of Engineers. 1976. Pumped Storage in the Pacific Northwest, Report Number 26, Portland, Oregon.



These and other potential sites were included in the Illinois River Wild and Scenic River Final Report to the Secretary of Agriculture. These sites include Fall Creek and Kerby on the Illinois River, and Sucker Creek, Althouse Creek, Rough and Ready Creek, and Lone Mountain (W. Fork Illinois).

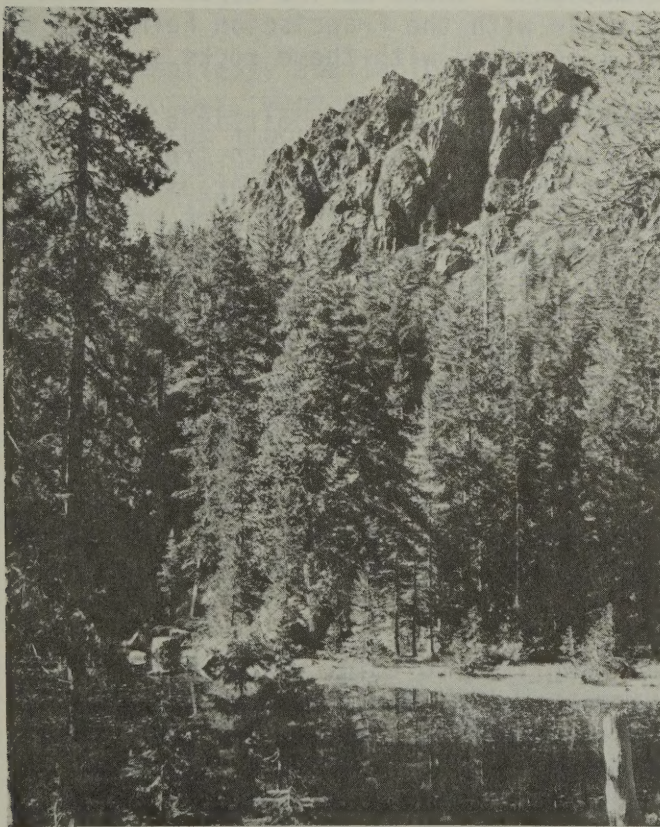
There are approximately 9,500 acres along the Illinois River and North Fork Smith River classified for water power or water storage. These lands have been withdrawn for water power projects.

### E. Geology and Minerals

The Chetco-Grayback Planning Unit lies primarily within the highly dissected, rugged, mountainous terrain of the Klamath Mountain's geomorphic province. The latest geologic interpretations place the western one-quarter of the Unit in the Coast Range province. The topography of this part of the Coast Range is similar to that of the Klamath Mountain. Narrow canyons and ridges with steep slopes predominate and landsliding is common, especially in the western part of the area.

The oldest rock type in the Chetco-Grayback Planning Unit is a northeast trending belt of metasedimentary and metavolcanic rocks mapped by Wells (1940) in the Grants Pass quadrangle, and which he later named the Applegate Group.

The Applegate Group is found in the eastern area of the Chetco-Grayback Planning Unit. The rock types include pale green to greenish-gray altered lava flows (greenstone), tuff breccia, stratified tuff, and intrusive rocks of similar basaltic to andesitic composition. The metasedimentary rocks include chert, argillite, and quartzite with minor pods of marble like the one in which the Oregon Caves is located.



Sanger Peak from Whiskey Lake

Within or bounding the Applegate Group, rocks are long narrow bodies of serpentinite that appear to separate them from the younger sedimentary rocks to the west. The serpentinite and metavolcanic rocks of the Applegate are sources of chromite, copper, and gold mineralization in the Planning Unit.

West of the Applegate Group, rocks are the metamorphosed sedimentary rocks of the Galice Formation. These rocks were originally deep ocean sediments such as mudstones and siltstones with some interbedded sandstones. There are also minor amounts of interbedded metavolcanic rocks. Trending toward the northeast and dipping generally to the east the formation is now made up of slate and argillite. The metasandstones are well indurated and quartz veined.



A large intrusive mass of granite type rock (Grayback Stock) makes up a considerable portion of the far northeastern part of the Planning Unit. This rock is described as being mostly quartz diorite; however, its composition varies from gabbro to granodiorite. The contact areas around the intrusive body have been thermally metamorphosed and the rocks are recrystallized to schistose or gneissic textures.

Trending through the middle of the Chetco-Grayback Planning Unit are a variety of volcanic rocks known as the Rogue Formation, including fine to coarse grained tuffs, agglomerates, flow breccia, and lava flows. Rogue Formation Rocks underlie much of the eastern part of the Kalmiopsis Wilderness Area and here are metamorphosed to greenschist and greenstone.

Serpentinite and various peridotites are very prevalent in much of this central portion of the Planning Unit. These rocks trend in a broad north to northeast direction and extend southward into Northern California. These ultramafic rocks are the source of chromite deposits, nickel laterite deposits, and minor copper mineralization in the Planning Unit.

West of the serpentinite is a north-trending plutonic rock mass consisting of gabbro and meta-gabbro. Magnetite is common in the gabbroic rocks and in some places may be of sufficient concentration to have some mineral potential. Smaller diorite plutons occur in the upper Baldface Creek area, the headwaters of Diamond Creek, and at Collier Butte, just north of the Planning Unit.

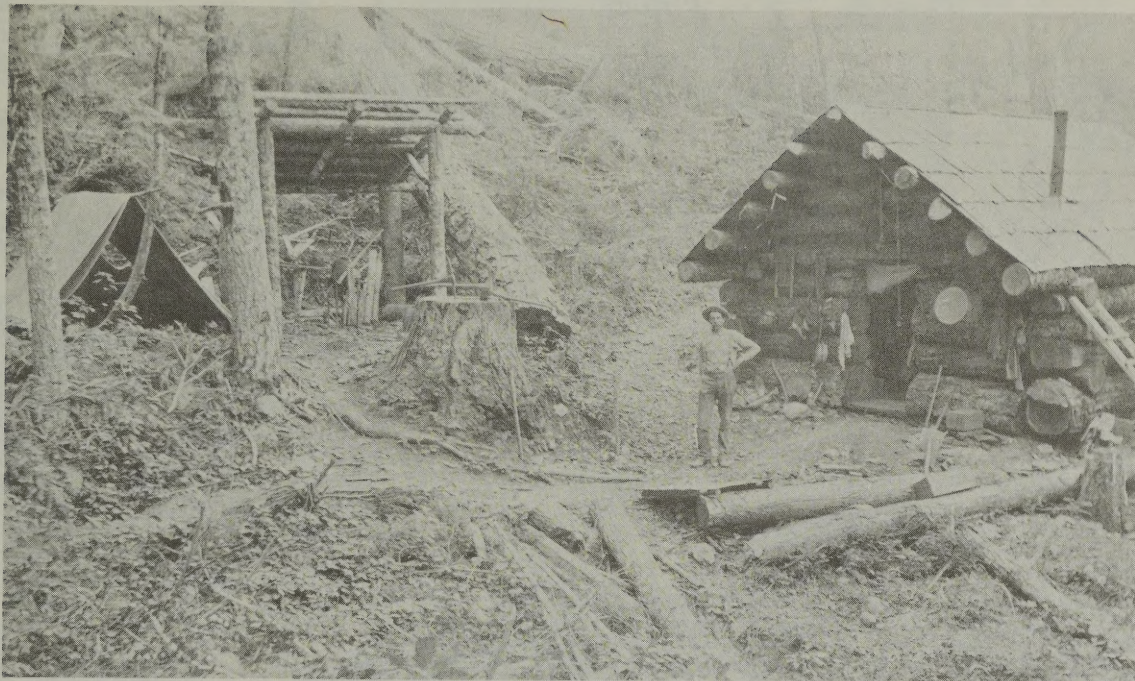
The western part of the Planning Unit is underlain by graywacke, sandstones, and mudstones of the Dothan and Otter Point Formations. These marine deposited sedimentary and minor volcanic rocks are correlative with the Franciscan Formation of California. No important mineralization is associated with these rocks.

The overall structural pattern in the Chetco-Grayback Planning Unit is a part of the general Klamath Mountain's pattern which consists of north-south trending belts which curve around toward the northeast. Generally the boundaries between the belts are fault contacts with the serpentinite and granitic plutons occurring in the zones of faulting. A large thrust fault zone trends northeastward through the Illinois Valley area of the Planning Unit. Structurally, the fractured and sheared sandstones and mudstones of the Dothan and Otter Point Formations have been thrust under the older metamorphic and ultrabasic rocks of the central part of the Planning Unit. The fractured and sheared characteristic of exposed rocks of the Dothan and Otter Point Formations contributes to the instability of its slopes, especially north of the Chetco River. Figure E-1 illustrates the general geology of this Planning Unit.

Mining activities on this Unit have been very sporadic during the last 100 years; however, with the ever-increasing demand for mineral resources this area could potentially be of very great importance.

Historically, the mining operations had been confined to gold, which produced steady, profitable employment during the pioneer days. Early prospectors discovered the gold deposits in Sucker, Althouse, Josephine, Canyon, and many other creeks on the Unit. Small communities developed in many of these areas, but slowly disappeared as the minerals were exhausted or became uneconomical to work. Mining on the many hundreds of existing claims may again be economically feasible with the present high gold value.





Early Mining Cabin

Other potentially available minerals that are present on this Unit are chromite, cobalt, copper, manganese, mercury, molybdenum, nickel, platinum, and iron. The United States imports approximately 70%, or more, of at least six (manganese, cobalt, chromium, platinum, mercury, nickel) of these minerals. 1/ Although some have been mined, inflation, low grade ore deposits, and distant processing plants have limited the mining industry from actively operating this area on a large scale; however, new technology for extracting these minerals could make a mining operation economically feasible. For example, hydrometallurgical and electrolytic processes have been used successfully to recover nickel, cobalt, chromium, and iron from low grade lateritic soils, also, eliminating the need for a conventional smelter. 2/ Energy requirements are relatively low, and except for minor operation losses, only coke and oxygen are consumed in an efficient, nonpolluting process. It is predicted that this process will be available for commercial use in the very near future.

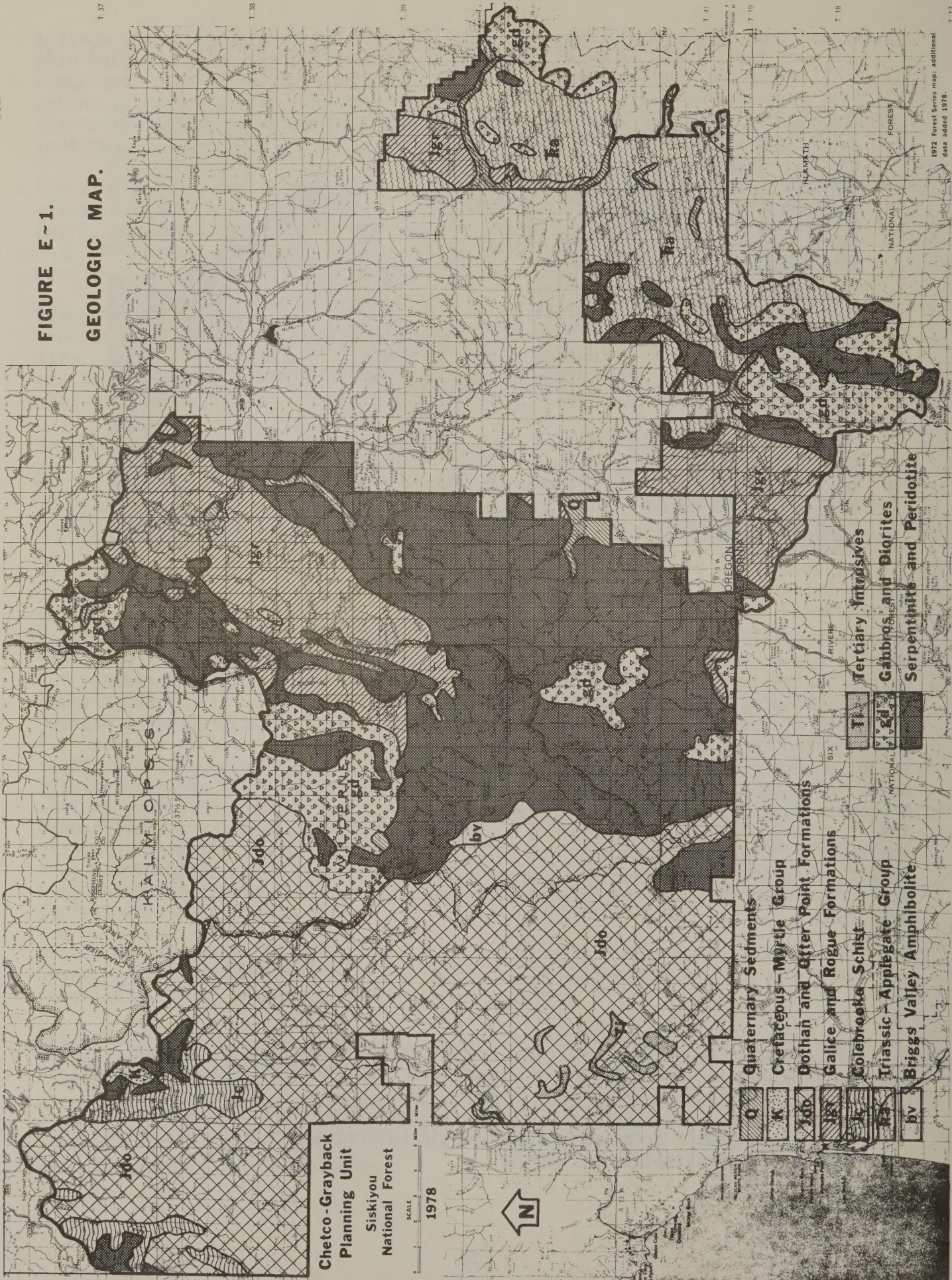
1/ Imports supplied significant percentages of minerals and metals consumption in 1975 - Bureau of Mines, U.S. Department of Interior (Import-Export data from Bureau of the Census).

2/ Siemens, R.E., Good, P.C., and Stickney, W.A., 1975. Recovery of Nickel and Cobalt from Low-Grade Domestic Laterites. U.S. Bureau of Mines Report of Investigation No. 8027.



R 13 W R 12 W R 11 W R 10 W R 9 W R 8 W R 6 W

**FIGURE E-1.  
GEOLOGIC MAP.**



**Chetco - Grayback  
Planning Unit**  
Siskiyou  
National Forest

SCALE  
0 1 mile  
1978



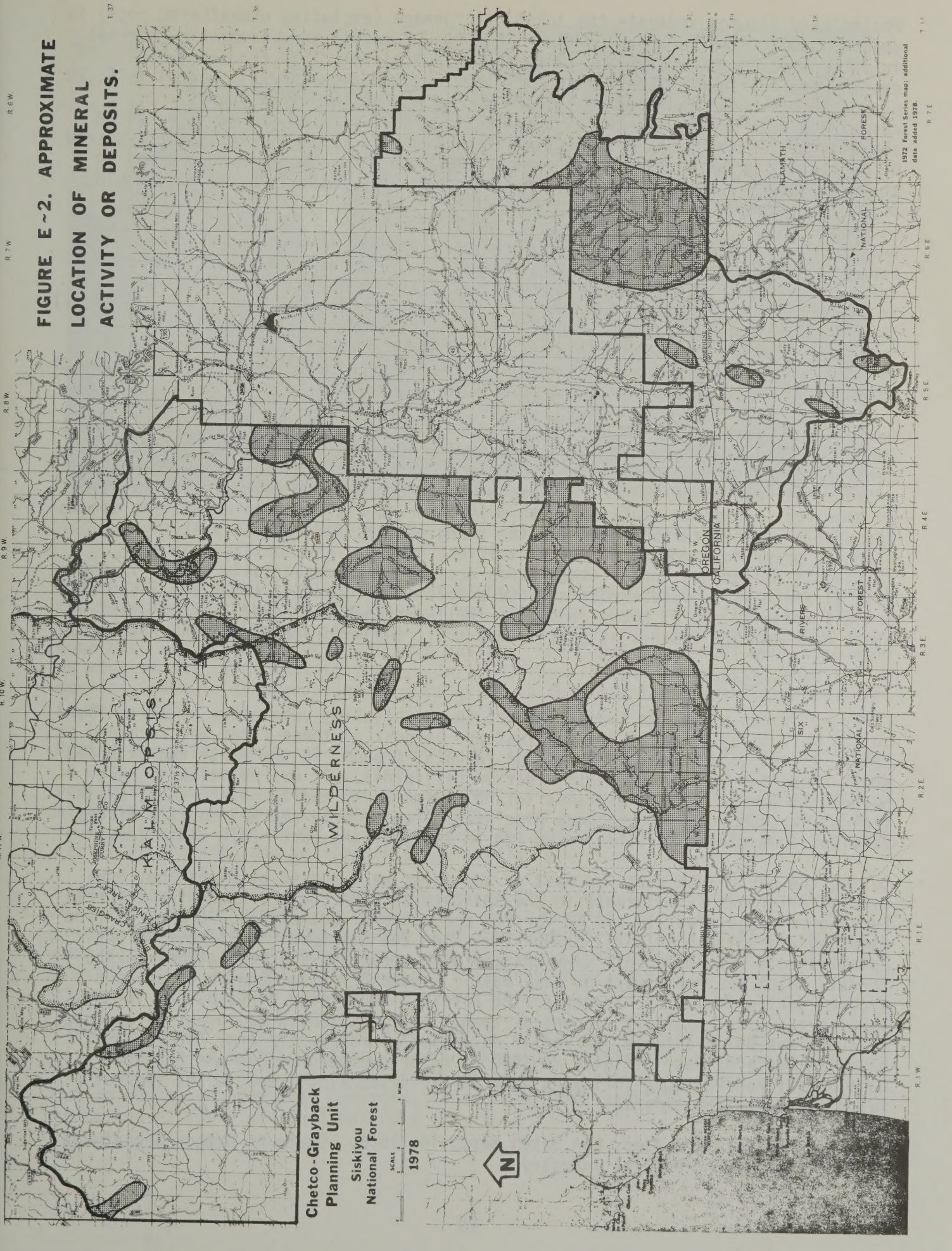
- Q** Quaternary Sediments
- K** Cretaceous-Myrtle Group
- Jdo** Dotlan and Otter Point Formations
- bv** Galice and Rogue Formations
- C** Colebrook Schist
- Ra** Triassic-Applegate Group
- bv** Briggs Valley Amphibolite
- Ti** Tertiary Intrusives
- Gd** Gabbros and Diorites
- S** Serpentine and Peridotite

1972 Forest Series map; additional  
data added 1978.

R 13 W R 12 W R 11 W R 10 W R 9 W R 8 W R 6 W R 7 E R 6 E R 7 E

T 37 T 38 T 39 T 40 T 41 T 19 T 18





**FIGURE E-2. APPROXIMATE  
LOCATION OF MINERAL  
ACTIVITY OR DEPOSITS.**

**Chetco-Grayback  
Planning Unit**  
Siskiyou  
National Forest

SCALE  
1978



1972 Forest Service map; additional  
data added 1978.



Preliminary figures indicate the total net tonnage (excluding unweathered rock) is about 28,000,000 metric tons (gross = 100,000,000 metric tons lateritic material in 13 deposits) with an average content of 0.82% nickel, 1.3% chromium, 0.08% cobalt, and 26% iron. Under the present market conditions (3/76), nickel is \$2.20 per pound, chromium is \$2.40 per pound, and cobalt is \$4.00 per pound, and, assuming a 90% recovery factor, the potential gross value of the net tonnage is about three billion dollars (excluding the iron). <sup>1/</sup> These figures are considered by geologists to be conservative, even though some deposits may not be mined in the near future; however, if mining becomes a reality, additional tonnage could possibly be discovered in adjacent areas.

Several large mining companies have shown considerable interest in the mineral deposits in this area and subsequently have spent considerable amounts of money for exploration. Most of the exploratory activities have occurred in or adjacent to Roadless Area 6709; however, geologic formations throughout the Unit (principally the east portion of Roadless Area 6709 and the Kalmiopsis Wilderness) indicate that potential mineral deposits could exist in these areas (other than what has already been discovered and/or worked). Nickel and chromite appear to be the most abundant mineral deposits in the area.

Operation of any claim requires disturbance of the land and the vegetation on that land. Although well-planned and implemented operations (as required under recently-established administrative mining regulations) can minimize environmental effects, at least some temporary impacts would occur. Some degree of reclamation is required. Possible conflicts with most other forest resource objectives can be adequately reduced through coordination among parties and careful analysis and planning prior to commencement of activities; however, any conflicts in the Kalmiopsis Wilderness and/or other lands designated to essentially remain in their natural state will present more serious problems. Figure E-2 shows the areas of primary activity and/or known deposits. Well-designed and carefully-run operations can minimize damage, if any, to the soil, the watershed, and other resources.

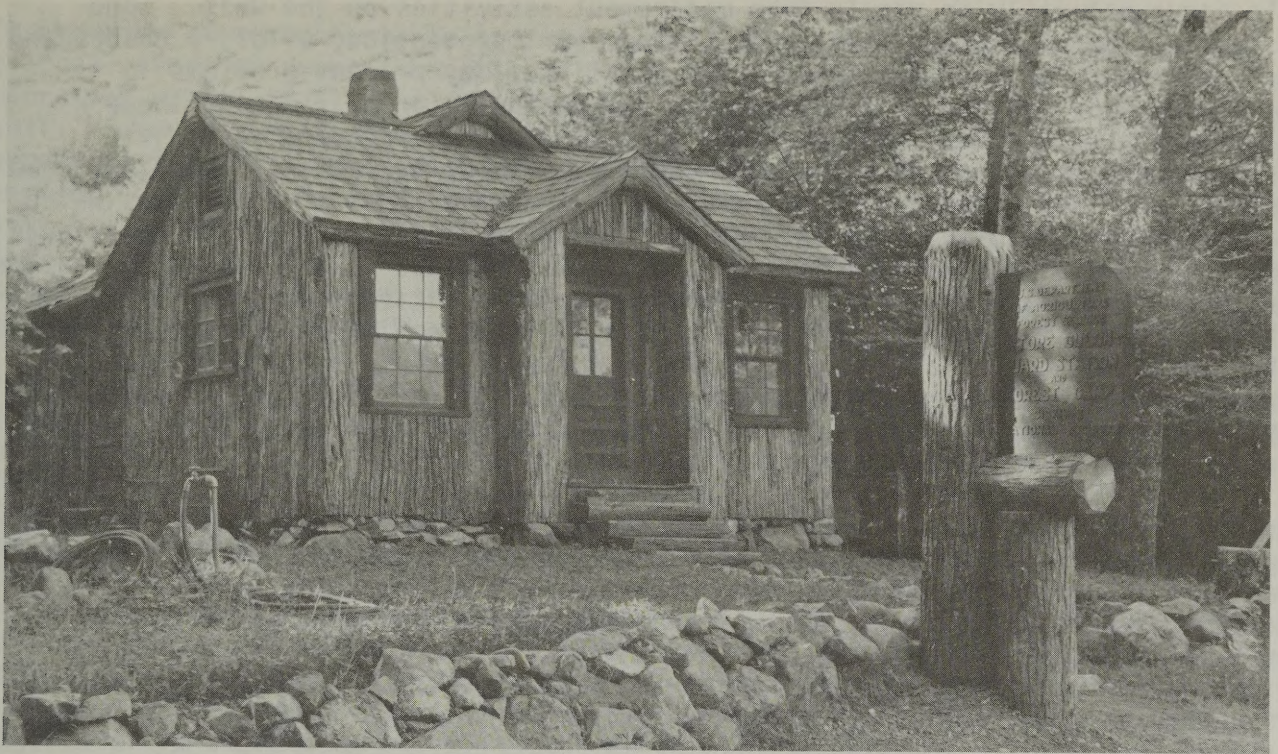
#### F. Fire Management

Early wildfires played an important part in establishing vegetative patterns found on the Unit today. One of the earliest and largest of these fires was recorded in 1868. It was said to have burned from Yachats, Oregon, in the north and extended south along the coast to Klamath River in California. It was believed to have burned all summer and the distance inland varied up to thirty miles. Most brushfields, hardwood stands, knobcone pine stands, and poorly-stocked conifer stands resulted from many such fires occurring in the 19th and early 20th centuries.

During the early 19th century, most of the fires were caused by lightning; however, the influx of immigrants to the sparsely settled country brought widespread burning of large areas to aid in various occupational activities. Organized fire fighting did not appear until around 1906 when the Siskiyou Forest reserve was established. Forest Rangers were charged with enforcing the regulations on the forest, which was not always an easy task. Incendiary fires continued to be a problem during the early history of the forest. Many large fires burned in low value areas with no effort to control them. Although modern equipment as we know it today was not available, an aerial detection patrol by the Army Air Service, based at Medford, was initiated in 1920 to cover southern Oregon and northern California; however, the following year it was discontinued due to the lack of funds for operating expenses.

<sup>1/</sup> Letter from Ramp, Len dated March 16, 1976. State of Oregon Department of Geology and Mineral Industry.





Store Gulch Guard Station and Forest Camp

The Forest Service initiated an active program to develop roads and trails through the Forest, but travel in the interior was still very slow and difficult. With the advent of the Civilian Conservation Corps in 1933, road development progressed much more rapidly and access was made easier. The C.C.C. personnel were also used on most of the fire fighting crews. In 1938, the airplane was pressed into service again to drop supplies to fire crews in the interior areas not accessible to pack stock.

During the late 1950's and early 1960's the increased demand for timber resulted in a rapid development of the Forest transportation system, giving access to previously isolated areas. Men and equipment could be dispatched within minutes after the fire had been reported. Therefore, very few large fires have occurred in recent years because of this access and the modern aerial support (smokejumpers, aerial retardants, and helicopters) now available.

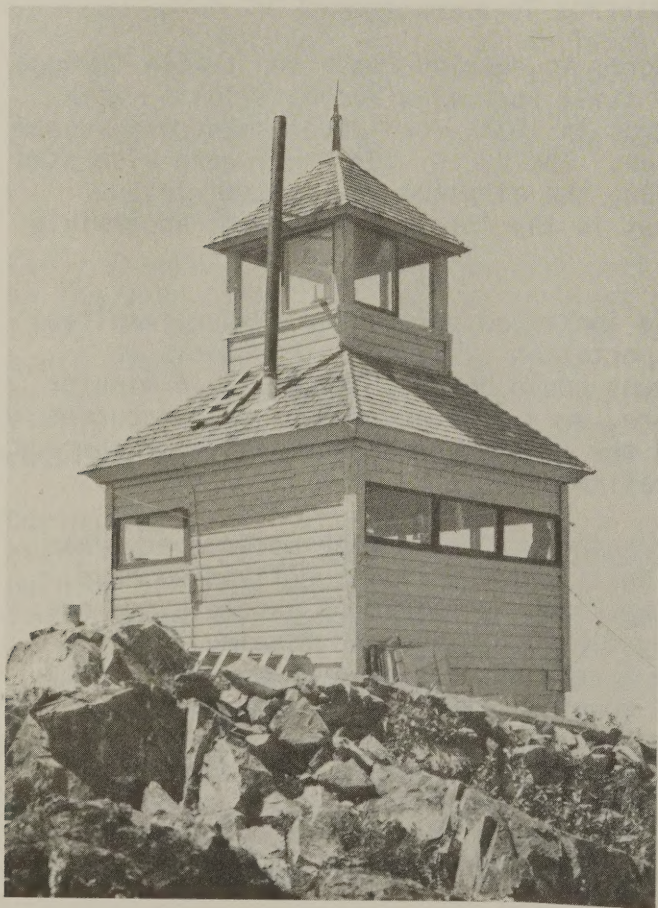
Lightning caused fires (Av. No. 10-15) averaging  $\frac{1}{4}$  acre in size occur every year, especially on the eastern portion of this Unit; however, man's activities have caused most of the problems. These fires have been a result of careless smokers, camping, timber harvest activities, warming fires (hunting and fishing), and incendiarism. Over the past six years the Forest has averaged about 47 of these fires per year with an average size of 2.7 acres.

Fire management's overall goal is to provide protection of the resources by minimizing value losses by fire, reducing hazards, eliminating risks, and fulfilling the resource management objectives involved. This is accomplished by public education, personal contacts, Forest closures, regulated use, and for reduction of risks and fuel hazards.



Fuels occur naturally or result from management activities on the Unit. Some residues are beneficial for nutrient cycling, soil protection, wildlife cover, and micro climate effect; however, excessive quantities may present problems to resource use, protection, and management. By manipulation or reducing these fuels, Forest protection and management objectives can be accomplished while preserving and enhancing environmental quality. Timber harvesting, thinning, road construction, land clearing, and similar operations are types of activities which usually increase the fuel load and increase the rate of fire spread and resistance to control. No single method will apply uniformly because variations in vegetative type, age and density of the cover, degree of cutting, utilization, harvesting method, climate, topography, soil, and risk will influence the treatment methods to be used. Methods of abatement include broadcast burning, burning of piled debris, yarding of unmerchantable material to landings for disposal, burying, and chopping. There are approximately 1,600 acres broadcast burned and 1,100 acres piled and burned on this Unit every year.

The amount of slash left in newly-harvested areas is steadily decreasing. This is largely a result of more efficient logging systems and improved market conditions, especially for traditionally low value material such as low value conifers, hardwoods, and cull material. Present trends indicate that someday it may be economically feasible to utilize the entire tree. Since most of the logging residue would be removed from the harvest area under these conditions, slash burning may become unnecessary; however, during the interim, it will be necessary to reduce fuel loading to satisfactory levels, commensurate with the risk of ignition, by prescribed burning if other reasonable procedures are not available.



Prescribed burning of forest debris is conducted in a manner designed to minimize any potential adverse effects on air quality, soil, wildlife, and other resources and resource management considerations. For example, the trend in recent years has been to accomplish broadcast burning during the spring when fuel and soil moisture levels are high. This results in less intense fires and minimizes or eliminates damage to soils. Another example is the Smoke Management System which controls and maintains satisfactory air quality in specified designated areas. This effort is also applied to other areas not defined as designated areas, but which are nevertheless sensitive to smoke. Factors that must be determined and are applicable to pre-burn planning include slash acreages, volume and type of slash, probable evolution of the smoke column vent height, the direction and velocity of smoke drift, mixing characteristics of the atmosphere, and the distance each burning operation is from designated areas.

Bolan Peak Lookout, Page Creek, July 1944



The yarding of unmerchantable and unutilized materials to landing areas for disposal provides several benefits. First, by removing the larger-size fuels, the operation substantially reduces the total volume of debris left on a given harvest unit. Second, the broadcast burn which may follow will be less intense (less heat generated from less fuel and fewer heavy concentrations of fuel). (As mentioned earlier, broadcast burning in the spring, where applied, also reduces fire intensity.) The damage to soils resulting from intense fires will thus be substantially reduced or even eliminated. Finally, a side benefit is that the unutilized materials are concentrated in an accessible area (a landing along a road) for use by firewood cutters and others.

Presuppression plans for the Unit have been developed to facilitate fire suppression efforts. These plans include basic elements, such as a fire management organization and financial plan, fire prevention plan, fire detection plan (both aerial and fixed ground lookout stations), presuppression plan which includes dispatching, fire danger ratings, fire weather forecasting and training, and fire mobilization plans. All fire suppression efforts are dependent on these presuppression plans.

Until potential fire management objectives can be analyzed or studied sometime in the near future, suppression will be fast, energetic, thorough, and safe, with the objective to control at ten acres. Subsequently, land management prescriptions will be developed to establish fire management goals for each fire management objective or, if necessary, for each individual land management classification. These fire management objectives, if established, will have a more flexible protection objective which may require (after extensive evaluation) either greater or less fire suppression efforts than the present policy.

#### G. Fisheries

The Chetco-Grayback Planning Unit is rich in aquatic resources. The Unit covers portions of five coastal watersheds, including Chetco, Illinois, Pistol, Smith, and Winchuck. The Illinois River, the major southern tributary of the Rogue River, drains the eastern portion of the Unit and occupies about 45 percent of the land area. Pistol, Chetco, and Winchuck rivers drain the western perimeter of the Unit and respectively occupy about 7 percent, 29 percent, and 7 percent of the area. The Smith River drains about 12 percent of the south-central portion of the Unit. All watersheds in the Unit receive moderate to high average rainfall and are dissected and drained by more than 2,300 miles of perennial and intermittent streams.

Fish populations of the Unit are abundant and diverse, with more than 14 species maintaining reproducing populations in its rivers and streams (Table G-1). The most economically important group, coldwater gamefish, includes both resident and anadromous stocks. Anadromous stocks include chinook salmon, steelhead rainbow trout, and coastal cutthroat trout. Resident populations of rainbow and cutthroat trout occur in many tributaries of the five watersheds, and eastern brook trout, an exotic species, are found in several streams and lakes in the eastern portion of the Unit. Eight species of nongame fish are scattered in streams throughout the Unit, and at least six species of warmwater gamefish occur incidentally in the mainstem Illinois River. Occurrence of these fish is a result of dispersion from farm ponds in lowland valleys. Warmwater gamefish are not known to reproduce in streams within the Unit.



Table G-1. Species of fish that occur in the Chetco-Grayback Planning Unit.

Gamefish		
Coldwater	Warmwater <sup>1/</sup>	Non-game Fish
chinook salmon	largemouth bass	Pacific lamprey
coho salmon	bluegill	redside shiner
steelhead	pumpkinseed	speckled dace
cutthroat trout	green sunfish	three-spine stickleback
(sea-run)	black crappie	carp
(resident)	brown bullhead	freshwater sculpins
white sturgeon		

<sup>1/</sup> Incidental occurrence.

Native resident rainbow and cutthroat trout are present in approximately 220 miles of streams in the Unit with perennial flow. Angling pressure on these populations is modest, averaging about 50 man-days per mile per year, and producing a fishery valued at over \$192,000 per year. Rainbow and/or eastern brook trout also occur in four lakes in the Unit, totalling 24 surface acres. While small and scattered, the lakes support a substantial fishery valued at over \$67,000 per year. The method of evaluating these fisheries consisted of estimates of man-days fishing effort supplied by Oregon Department of Fish and Wildlife, multiplied by net benefits per angler day of \$10.60 for streams and \$16.00 for lakes (Gordon et al. 1972), and an adjustment in value based on increases in the consumer price index for years between the date of Gordon's study and 1975. Values of resident trout fisheries by watershed are listed in Table G-2.

Table G-2. Net annual value of fisheries for resident trout in streams and lakes of the Chetco-Grayback Planning Unit.

Watershed	Value Streams	Value Lakes	Total Values
Chetco	\$ 45,000	\$23,900	\$ 68,900
Illinois	\$ 90,800	\$43,700	\$134,500
Pistol	\$ 16,400	-	\$ 16,400
Smith	\$ 19,800	-	\$ 19,800
Winchuck	\$ 20,800	-	\$ 20,800
Totals	\$192,800	\$67,600	\$260,400

Many streams that originate within or traverse through the Unit are important producers of anadromous salmonids. The most important streams for spawning, rearing, and migration include the Chetco River and its tributaries, Emily Creek and the South Fork, the Illinois River, and the North Fork Smith River and its tributaries, Baldface Creek and Chrome Creek. Many smaller streams also serve as spawning and rearing habitat. Average annual escapement of anadromous salmonids in each watershed is listed in Table G-3.



Table G-3. Estimated annual escapement of anadromous salmonids in streams which intersect the Chetco-Grayback Planning Unit.

system	species				total
	chinook	coho	steelhead	cutthroat	
Chetco	25,000	5,000	17,000	5,000	52,000
Illinois	20,000	1,400	30,000	3,000	54,400
Pistol	2,000	200	1,200	4,000	7,400
Smith	15,000	5,000	30,000	5,000	55,000
Winchuck	2,000	200	1,500	1,500	5,200
<b>totals</b>	<b>64,000</b>	<b>11,800</b>	<b>79,700</b>	<b>18,500</b>	<b>174,000</b>

Life histories of salmon reproducing in streams of the Planning Unit vary by species. The annual migration of fall-run chinook begins in early August for the Illinois stocks and continues into December. Adults average over 30 inches in length and 15 pounds in weight, but individuals frequently exceed 30 pounds. Spawning begins as early as late October in the Illinois. Peak activity generally occurs between mid-November and late December. In the Illinois system, spawning is distributed along much of the mainstem and in many tributaries, including some that become intermittent in summer. Fall chinook runs in the Chetco, Pistol, Smith, and Winchuck are later, beginning in November and continuing through January. Peak spawning activity occurs in December and January.

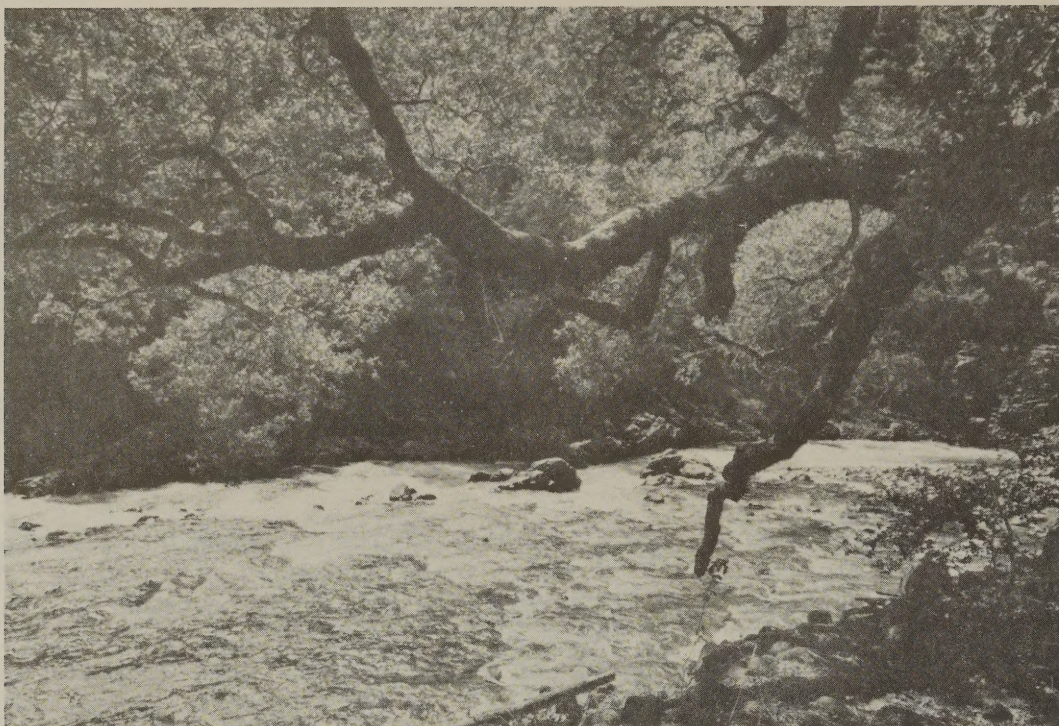
Emergence of fall chinook fry occurs in February and March and seaward migration of juveniles occurs the following summer after only a few months of rearing in the rivers. The fish return to the rivers as adults on a spawning migration after spending from one to four years at sea.

Small runs of coho salmon also spawn in the Unit. Each year coho enter the rivers in October and November and migrate in low numbers to nearly all major tributaries within the Unit. Adults average about 27 inches in length and 10 pounds in weight. Spawning occurs in December, fry emerge in February and March, rear in the rivers from one to two years, and migrate to sea in May and June at a length of 5 to 6 inches.

Winter-run steelhead begin entering the rivers in November and continue through March, with peak entry in December. Adults average about 24 inches in length and 6 pounds in weight. Spawning begins in February and peaks in late March along most of the mainstem rivers and perennial tributaries within the Planning Unit. Most winter steelhead fry emerge in May and June and rear in natal tributaries or mainstem rivers for two years. Juveniles enter the sea at a length of 7 to 8 inches. Winter steelhead usually spend two years at sea before returning to spawn.

The life history of sea-run cutthroat is similar to that of winter steelhead, except adults return to spawn after one season of ocean residence. Adult cutthroat average 12 inches in length, but some older specimens attain a length of 24 inches and a weight exceeding 4 pounds. Spawning occurs in early winter.





Illinois River

Populations of anadromous salmonids in rivers and streams which traverse the Planning Unit sustain important sport and commercial fisheries. Sport fisheries total over 186,000 angler-days, with a harvest of over 120,000 fish, and an annual net value of over \$5 million. Catch, effort, and net economic values for salmon, steelhead, and cutthroat trout are presented in the Appendix.

Estimates of net economic value, located in the Appendix, are based on studies in Washington by Mathews and Brown (1970) which indicate that a net value of \$28 per angler-day should be considered an absolute minimum for evaluating salmon fisheries threatened by alternative resource uses. The \$28 value was based on a freshwater salmon fishery, while saltwater salmon fishery values were estimated at \$63 per day in some coastal zones of Washington. Other studies by Brown et al. (1972), based on revision of a survey conducted in 1964, indicate that steelhead anglers in Oregon average a net economic benefit of \$20 per angling day. Tuttle et al. (1975) recommend using \$32 per angler-day for steelhead and freshwater salmon fishing because this value is based on the most recent survey and was conducted using superior techniques and data.

A value of \$63 per angler-day was used for evaluation of marine sport salmon fisheries.

Since no studies are available on net values of cutthroat fisheries, and since in southwest Oregon cutthroat and steelhead fisheries are similar, the daily value of steelhead fisheries was also applied to local coastal cutthroat fisheries. Values for all anadromous fisheries were increased by the percentage rise in the consumer price index between 1967 (the year of Mathews and Brown's study) and 1975.



Rivers which traverse the Planning Unit also produce large numbers of salmon which are caught by commercial fisheries of California, Oregon, Washington, and British Columbia. The combined value of these fisheries is estimated at over \$2.7 million per year (Table located in Appendix). Estimates are based on data from several sources. Catch/escapement ratios for chinook and coho salmon from southern Oregon rivers were developed after reviewing catch/escapement ratios from the Columbia River, Elk River on the southern Oregon coast, and consulting many biologists. No general agreement exists among biologists, but ratios between 3/1 and 6/1 have been suggested for fall chinook and coho on the south coast. At the urging of the National Marine Fisheries Service (Shelton, 1973; Galler, 1975) a catch/escapement ratio of 5/1 was utilized for fall chinook and coho salmon.

Two sources of information are available for separating sport and commercial catch of salmon, one for Columbia River stocks (Oregon State Game Commission, 1973), and a second for coastal river stocks (Kunkle and Janik, 1976). Oregon Game Commission data indicate that 80% of the ocean catch of Columbia River salmon is taken by commercial fisheries, and 20% by sport fisheries. Kunkle and Janik report that catch from coastal rivers is distributed 72.5% to commercial fisheries and 27.5% to sport fisheries. In determining the annual value of fish production from the Siskiyou, catch distribution for coastal rivers of Oregon was used.

The worth of commercial fisheries calculated (See Appendix) represents a dockside commercial value, or the approximate value paid to fishermen for their catch. While this value is not directly comparable to the net value of sport fisheries, Tuttle et al. (1975) suggests that ex-vessel (prices paid to fishermen) market prices may be used to represent the estimated net value of commercially caught fish. For a more detailed discussion of this subject see Wahle et al., (1973).

The total annual net value of sport and commercial fisheries for anadromous salmonids produced in watersheds which intersect the Planning Unit (See Figure G-1) exceeds \$18 million, but only a small portion of the value is directly attributable to the Unit. Since detailed inventory of fish populations and water production has not been conducted for many individual streams within the Unit, two assumptions were made to assign fishery values to watershed areas within the Unit, 1) water quantity and quality are the primary factors limiting natural populations of salmonids in streams that flow through the Unit, and 2) high quality water produced in all geographic areas of each watershed makes approximately equal per unit contribution to fish production. Based on these assumptions, fishery values attributable to lands of the Planning Unit were calculated by direct proportion. The percentage area of each watershed within the Unit was determined and the total fishery value for the watershed was multiplied by the percentage to estimate values attributable to the Unit.

The estimated total annual net value of anadromous fishery resources attributable to the Planning Unit, as calculated by this method, exceeds \$7.4 million (Table G-4). More than 80% of the value is associated with portions of the Chetco and Illinois watersheds.



R. 13 W. R. 12 W. R. 11 W. R. 10 W. R. 9 W. R. 8 W. R. 7 W. R. 6 W.

T. 37

T. 38

T. 39

T. 40

T. 41

T. 42

T. 43

T. 44

T. 45

T. 46

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T. 73

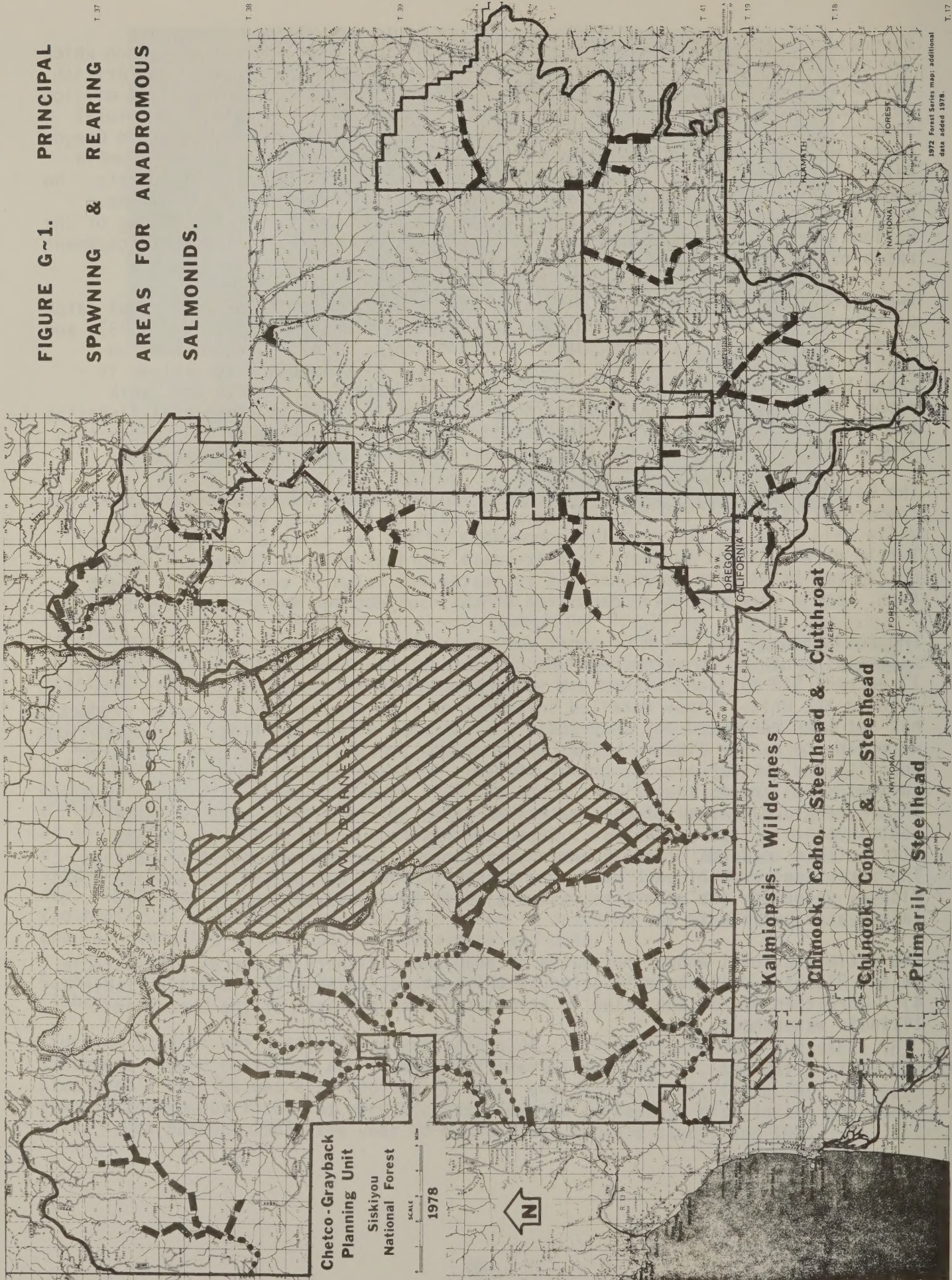
T. 74

T. 75

T. 76

T. 77

**FIGURE G-1.**  
**PRINCIPAL**  
**SPAWNING & REARING**  
**AREAS FOR ANADROMOUS**  
**SALMONIDS.**



**Chetco-Grayback**  
**Planning Unit**  
**Siskiyou**  
**National Forest**

SCALE  
0 1 2 3 4 5 Miles  
**1978**



1972 Forest Series map; additional  
data added 1978.



Table G-4. Estimated total value of sport and commercial fisheries for anadromous salmonids produced in Chetco, Illinois, Pistol, Smith, and Winchuck Rivers, and that portion of the value which can be attributed to lands within the Chetco-Grayback Planning Unit, 1974.

watershed	estimated value in watershed	percent watershed in Unit	estimated fish value in Unit
Chetco	\$3,337,720	64.2	\$2,142,816
Illinois	\$2,273,730	33.4	\$ 759,426
Pistol	\$ 248,190	53.5	\$ 132,782
Smith	\$2,588,350	12.3	\$ 318,367
Winchuck	\$ 274,110	72.8	\$ 199,552
<b>totals</b>	<b>\$8,722,100</b>		<b>\$3,552,943</b>

Anadromous fish must migrate from freshwater to the ocean and return to freshwater to spawn to complete their life cycle. Any restriction to passage of adults upstream, or juveniles downstream, may limit anadromous populations. Natural barriers to migration are present in several streams within the Unit, including Emily, Eagle, Cave, Grayback, and Sucker Creeks, but the inventory is incomplete. The barrier on upper Emily Creek stops upstream migration of salmon and steelhead and has been scheduled for removal feasibility study in FY 79.

Maintenance of water quality in streams throughout the Unit is of utmost importance to continued production of salmonids. Several existing laws and regulations extend a high level of protection to these waters. The 1967 session of the Oregon Legislature authorized the body now known as the Department of Environmental Quality to formulate general water quality standards below which Oregon's water will not be degraded. Special standards pertaining to the Rogue River basin (Section 40-080, Chapter 340, Oregon Administrative Rules Compilation) were adopted by that Department in 1969 and revised in 1976 which establish specific limits of coliform organism concentrations, dissolved oxygen concentrations, pH, turbidity, temperature, and dissolved chemical substances. All of these measures are of great value in protecting and improving the water resources of the area, and will be applied to all streams on National Forest land within the Planning Unit.

#### H. Hydrology-Watershed

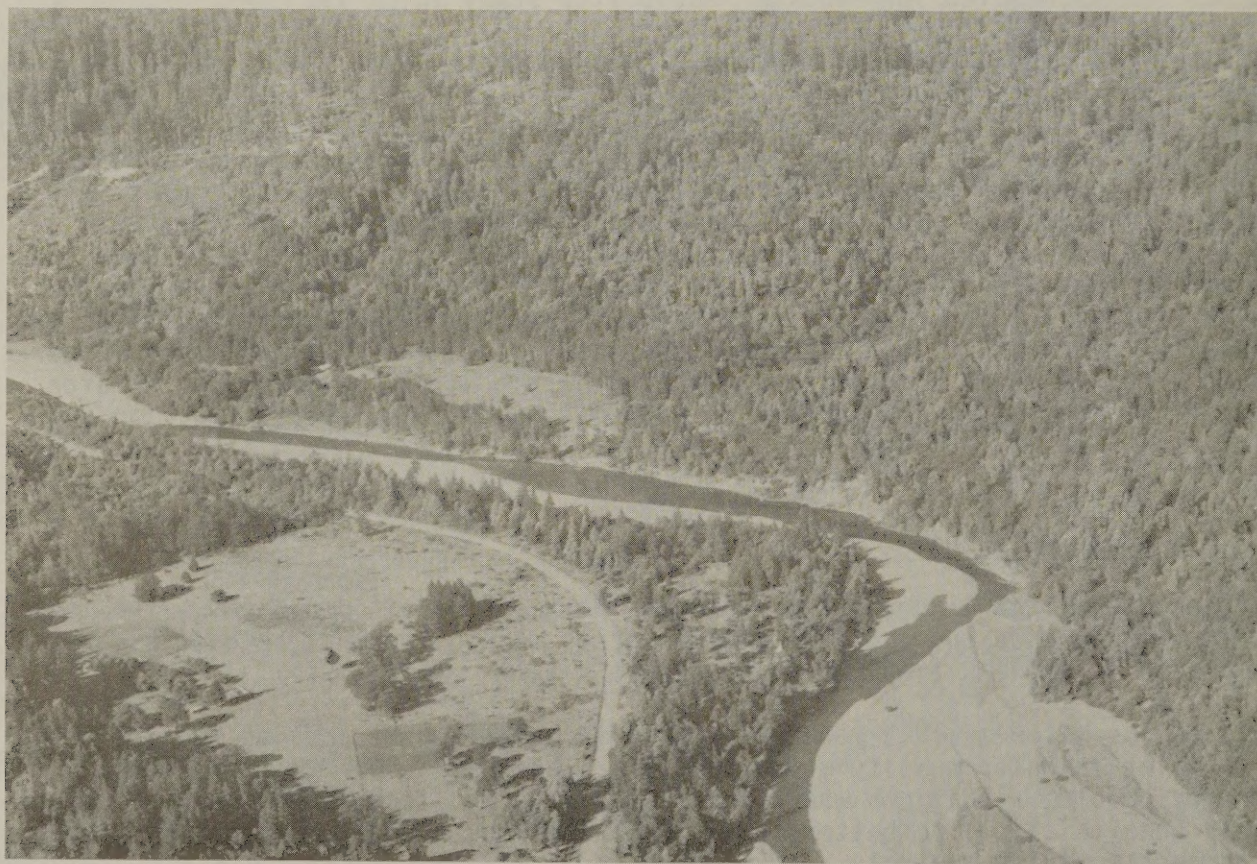
The Chetco-Grayback Planning Unit contains portions of six drainages. The major and minor drainages and their respective areas within the Unit boundaries are summarized in Table H-1 and shown in Figure H-1.

Goals of the water quality monitoring program in this Unit include the following: 1) to maintain water quality and attain the State Water Quality Standards; 2) to identify problem situations where improved management techniques would be particularly beneficial; 3) to better understand localized hydrologic processes; and 4) project activity control.



The water quality monitoring program is oriented to gathering information about water temperatures and about water turbidities and suspended sediments. These are the key water quality variables in the waters of this Unit. Little other water quality information on-Forest has been collected. Dissolved oxygen, a key variable for fishery resources, is naturally maintained at close to saturation levels because of the frequency of riffles which tend to aerate the water.

Several stream gaging stations exist within or near the Unit boundaries. Most of the information gathered is through the U.S. Geological Survey and State cooperation (Table located in the Appendix). Gaging stations on the Pistol and Winchuck Rivers are recent installations. Several stream staff gages have been installed and stage-discharge relationships are being developed for low to moderate flows. Much of this was done during the drought of 1977 to obtain historical low flow data. Flow information is especially important when collecting turbidity and suspended sediment readings. Recording or maximum-minimum thermometers have been installed in many streams to obtain peak temperature and fluctuation data. On this Unit there are two erosion plot studies and numerous reconnaissance locations, six project monitoring sites, and seven baseline monitoring stations (usually gaging stations). Major emphasis is placed on prevention of severe water quality impacts. Water resources data is very valuable for planning, environmental assessment, and design criteria.



Chetco River Floodplain



Precipitation within the Planning Unit varies widely. In general, precipitation and streamflow decrease as one travels east across the Unit; however, other factors, including wind patterns and topography, also influence precipitation. Streamflow is influenced by a multitude of factors including precipitation, geology, topography, vegetation, soil, and in some cases, man or animal activities. Average annual water yield for the Chetco-Grayback Planning Unit is estimated at 90 inches, or about 3.5 million acre-feet. Rainfall averages slightly over 100 inches for the Unit. Figure H-2 is an Isohyetal (precipitation) Map for this Unit.

All streams within the Planning Unit have been classified under the U.S. Forest Service, Region 6 four level system, based on water use, fishery resources, and the potential effect each stream has on the quality of downstream waters. Class I and II streams are used either for domestic water supply, have important fishery resources, or flow sufficient water to have a major effect on other Class I and II streams (Figure H-3). Class III and IV streams are smaller, do not have important fishery resources, and on an individual basis, do not flow enough water to have a major effect on Class I and II streams. Stream mileage under Federal ownership in each allocation with the Planning Unit is listed in Table H-1.

Water quality and quantity greatly diminishes over the summer season. Stream temperatures, especially at lower elevations, greatly increase as flows decrease and solar heating rises. Higher algae levels and bacteria counts decrease the aesthetic properties of many streams. As flows recede in the summer, a greater percentage of water comes from ground water sources. Ground water has been in contact with soil and bedrock materials and contains more nutrients from weathering processes. The enriched summer flows along with higher stream temperatures support higher algal populations.

Suspended sediment and turbidity and temperature may be temporarily increased as a result of timber management. The impact is a function of the area disturbed, slope, soil erodibility, and the amount of remaining vegetation and litter. Vegetation and litter cover are perhaps the greatest deterrents to soil erosion processes. Cover reduces the detaching and transporting power of water as well as increases the soil structure and stability. For these reasons, most current timber harvest practices are oriented towards minimizing disturbance of the soil surface. Rapid revegetation of exposed soils is accomplished through tree planting as well as grass seeding and fertilization of critical areas.

In general, any practice which largely reduces or removes vegetation from an area will increase subsurface flows to streams during the growing season due to the reduction in transpiration. Quickflows as well as peak flows are usually significantly higher for clearcut areas than uncut areas during the first fall storms when maximum soil moisture differences occur. After forest soils are recharged, differences are greatly reduced but may still be evident. On a total watershed basis where timber is managed under sustained yield, flow changes are usually undetectable. Martin and Tinney (1962) found no detectable change in water yield when 64% of a large southwestern Washington watershed was logged at a rate of 2% per year. <sup>1/</sup> Harr et al. (1975) reported for coastal Oregon watersheds less than 30% cut and 4% roaded. They found no significant changes in peak, quick, delayed,

<sup>1/</sup> Martin, I.L., and E.R. Tinney. 1962. Logging in West Coast Watershed Shows No Effects on Areas Water Yield. In the Timberman, May 1962. pp. 46-48.



or total flows. 1/ They also found that extensive logging (65% or more) and roading (12% or more) caused increased peak flows from relatively small, steep watersheds. 2/ Rothacher (1973) found higher peak flows in the fall, but winter peaks were largely unchanged. 3/ There has been relatively little research on the impact of large magnitude storm events (e.g., 1964 flood) on either managed or unmanaged areas.

Practices which tend to compact significant areas (e.g., tractor skidding) would likely also increase peak flows. Excessively hot slash fires (particularly in the fall when soil moisture is low) may also increase peak flows by altering soil structure - causing a reduction in infiltration. Practices which reduce infiltration potentially could reduce minimum streamflows, especially if the impacted area forms a large percentage of the watershed. The organic matter on the soil is also very important in holding and retaining water long enough so it can infiltrate.

Table H-1. Major and Minor Watersheds (SMU) Within the Chetco-Grayback Planning Unit.

Watershed	Area (Sq.Miles) <u>1/</u>	SMU (Stream Class)				Total Miles
		I	II	III	IV	
Illinois River:	(334.9)	82	102	282	735	1,201
Sucker Creek	61.9					
Althouse Creek	20.9					
East Fork Illinois	57.9					
West Fork Illinois	41.7					
Rough and Ready Creek	36.2					
Josephine Creek	42.9					
Other Illinois	73.4					
Smith River	88.7	12	18	29	166	231
Winchuck River	53.7	22	18	17	96	153
Chetco River	227.6	47	38	72	405	562
Pistol River	67.4	15	20	18	104	157
Klamath River	3.2	0	0	3	6	9
TOTAL	775.5	178	202	421	1,512	2,313

1/ Approximate. Includes all land within the Unit boundaries.

1/ Harr, R.D., W.C. Harper, J.T. Krygier, and F.S. Hsieh. 1975. Changes in Storm Hydrographs After Road Building and Clear-Cutting in the Oregon Coast Range. Water Resources Research Vol. 11, No. 3. pp. 436-444.

2/ Harr, R.D., et al. 1975. Ibid.

3/ Rothacher, J. 1973. Does Harvest in West Slope Douglas-fir Increases Peak Flow in Small Forest Streams? U.S. Forest Service Research Paper PNW-163. pp. 13.





Water Seep

Water seeps are common in the Grayback Creek drainage. Variations in chemical composition of granitic rock have allowed some areas to be deeply weathered while adjacent areas may have shallow soil over hard rock. This may lead to water concentrations in the more porous weathered material. Areas of steep slopes with slate bedrock tend to have numerous steep drainages trending down the slopes. These drainages are subject to debris avalanches when water and/or sidecast material is concentrated in them due to road construction. Debris avalanches also may sometimes occur in these drainages if the vegetation has been removed and water is concentrated from a heavy rain, even where roads are not present. Where water seeps are present, serpentinite may develop a red silty layer of soil over blue gray clayey and granular material which is of low strength. A double layer of water may develop, one on the silty surface layer and one in the granular material just above hard bedrock. These areas call for drainage measures, subgrade reinforcement, or route relocation. Metavolcanic rocks and greenstone weather to brown sandy soil and angular rock fragments. The fractured rock mantle is fairly stable if no downslope movement has taken place, because the angular fragments are wedged together.

Water saturation in the weathered rock may lead to high pore water pressures and the weathered mantle may slide along the interface with the fresh rock beneath. Pockets of anomalously deep soil and weathered rock may slide when saturated if road construction or stream erosion has removed support downslope from them. Generalized or regional studies of soil or rock types are somewhat ineffective in providing useful specific information to road locators, because the problem areas are usually small and are often hidden from direct observation. Siskiyou National Forest geologists spend much of their time searching out these anomalous areas.

The 1967 session of the Oregon Legislature authorized the Department of Environmental Quality to formulate general water quality standards below which Oregon's waters will not be degraded. Limits on coliform bacteria, dissolved oxygen, pH, turbidity, temperature, and dissolved chemical substances within the Rogue Basin were adopted in 1969 and the State-Wide Water Quality Management Plan in December 1976 (Section 40-080, Chapter 340, Oregon Administration Rules Compilation). All chemical and physical components regulated are important indicators for maintaining the water quality of the area.



The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) has for its objective the restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective, it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985 and, wherever attainable, that an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and provides for recreation in and on the water be achieved by July 1, 1983.

Section 304 (e)(1) and 304 (e)(2) of FWPCA 1972 require the Administrator of the Environmental Protection Agency to issue information including (1) guidelines for identifying and evaluating the nature and extent of nonpoint sources of pollutants, and (2) processes, procedures, and methods to control pollution resulting from various activities. Accordingly, EPA has prepared reports covering some processes, procedures, and methods to control pollution resulting from road construction, silvicultural, timber harvest, residue treatment, and mining activities; pollution from subsurface excavations and salt water intrusion; methods for identifying and evaluating the extent of nonpoint sources of pollutants, including agricultural nonpoint sources; and silvicultural chemicals and the protection of water quality.

The EPA reports are intended to serve as guidelines for agencies designated under Section 208 of FWPCA 1972 and are not issued as binding regulations. They contain much useful information, some of which was contributed by the Forest Service, and are recognized as valuable aids for planning and administration.

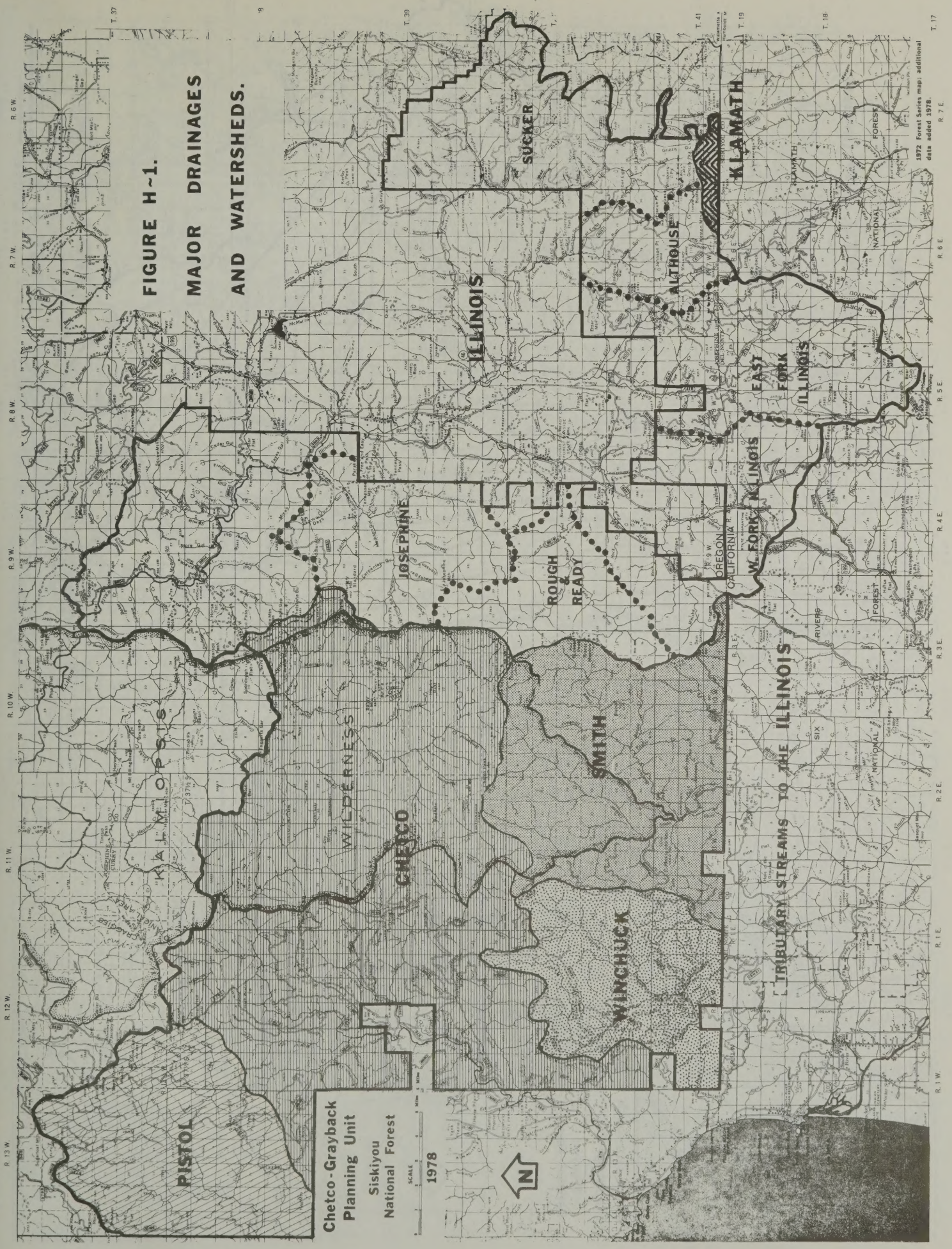
The National Forest Management Act of 1976 also provides direction for protecting against watershed abuse. Timber harvesting will proceed only where watershed conditions are not irreversibly damaged and lands can be restocked within five years. Streams are to be protected against detrimental changes in temperature and sediment loads. The silviculture and logging systems used will be fitted to the site to insure soils and watershed protection and rapid regeneration.

Compliance with Section 2 of EO 11988 of May 24, 1977, will reduce the risk of flood loss by minimizing the effect of floods on human safety, health and welfare; the natural beneficial values served by flood-plains would also be enhanced and preserved.

Similarly, compliance with Section 2 of EO 11990 of May 24, 1977, directs the Forest to avoid undertaking or providing assistance for new construction located in wetlands unless the Forest finds (1) there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this assessment, the Forest would take into account economic, environmental, and other pertinent factors. Figure H-4 shows the floodplain areas on the Unit.

Land management planning on the Chetco-Grayback Planning Unit has been carried out in accordance with established Forest policies pertaining to silviculture, watershed protection, and soil management. These policies recognize and are compatible with the stated goals of the FWPCA Amendments of 1972 and the National Forest Management Act of 1976. Executive Order 11514 (Section 2, 1970) places responsibility to monitor, evaluate, and control agency activities on a continuing basis to maintain environmental quality. Activities are adjusted where necessary to help maintain water quality.





**FIGURE H-1.**  
**MAJOR DRAINAGES**  
**AND WATERSHEDS.**

**Chetco-Grayback**  
**Planning Unit**  
Siskiyou  
National Forest

SCALE  
1978



1972 Forest Series map, additional  
data added 1978.



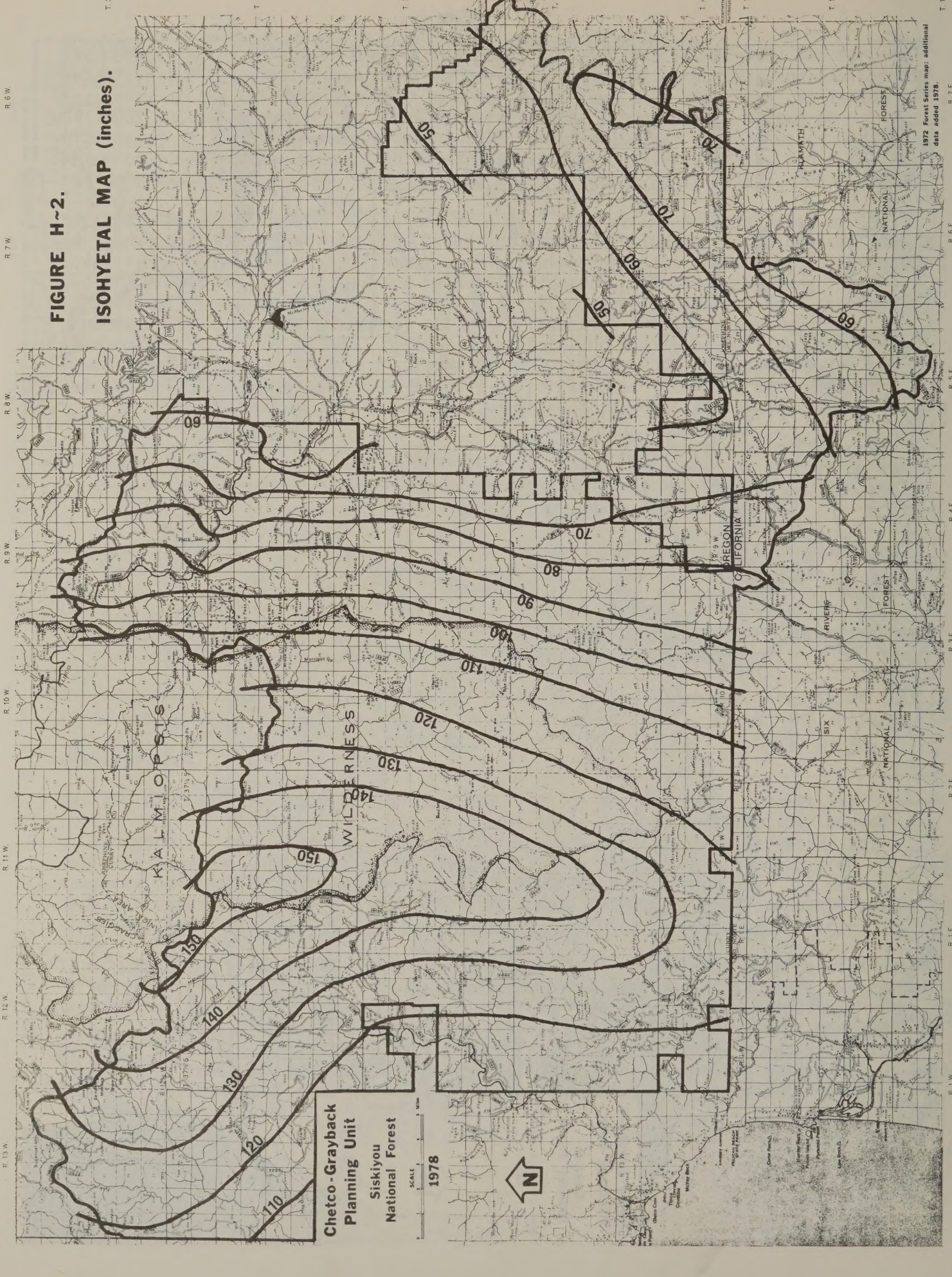
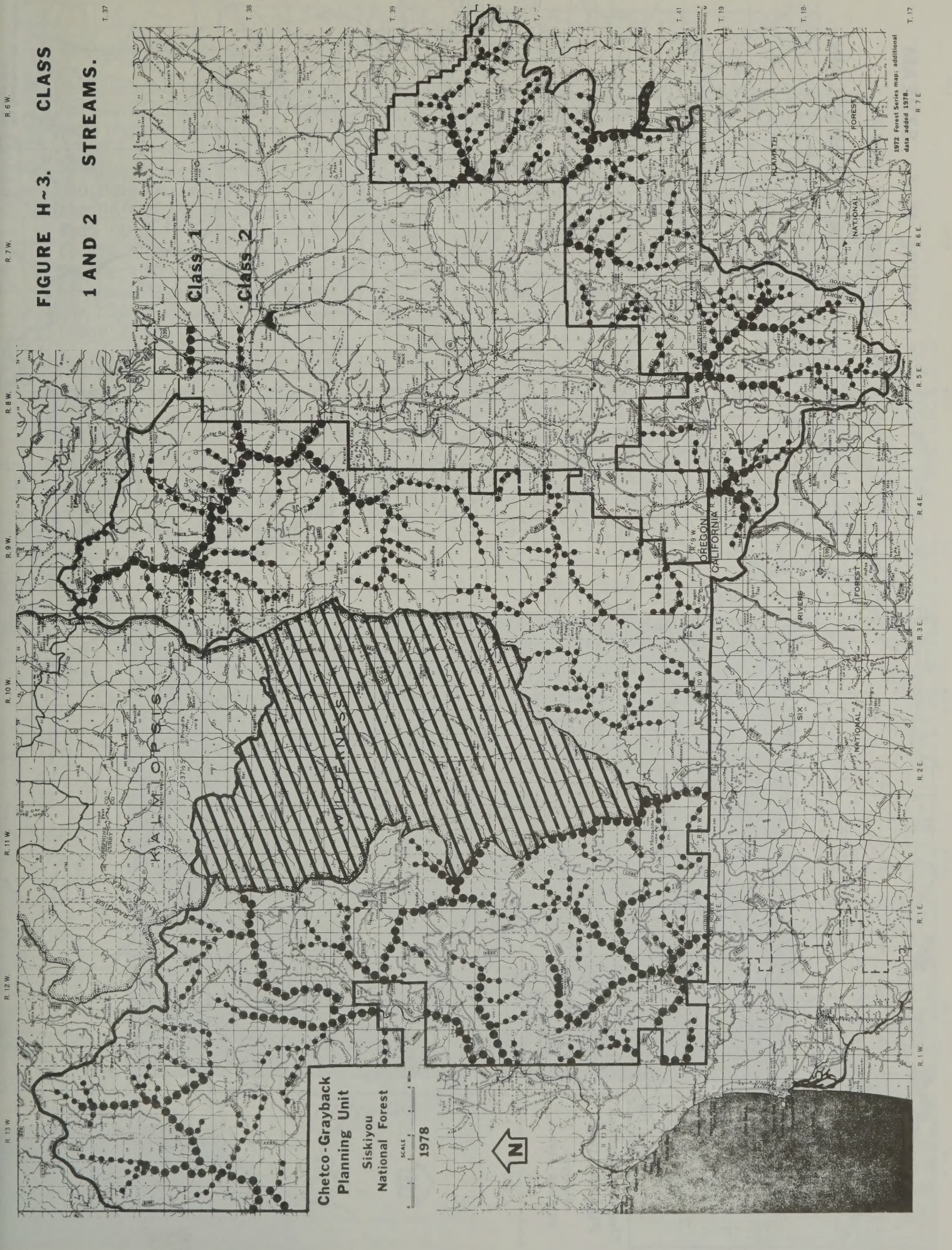


FIGURE H-2.

ISOHYETAL MAP (inches).





**FIGURE H-3.**  
**CLASS**  
**1 AND 2**  
**STREAMS.**

Chetco-Grayback  
Planning Unit  
Siskiyou  
National Forest

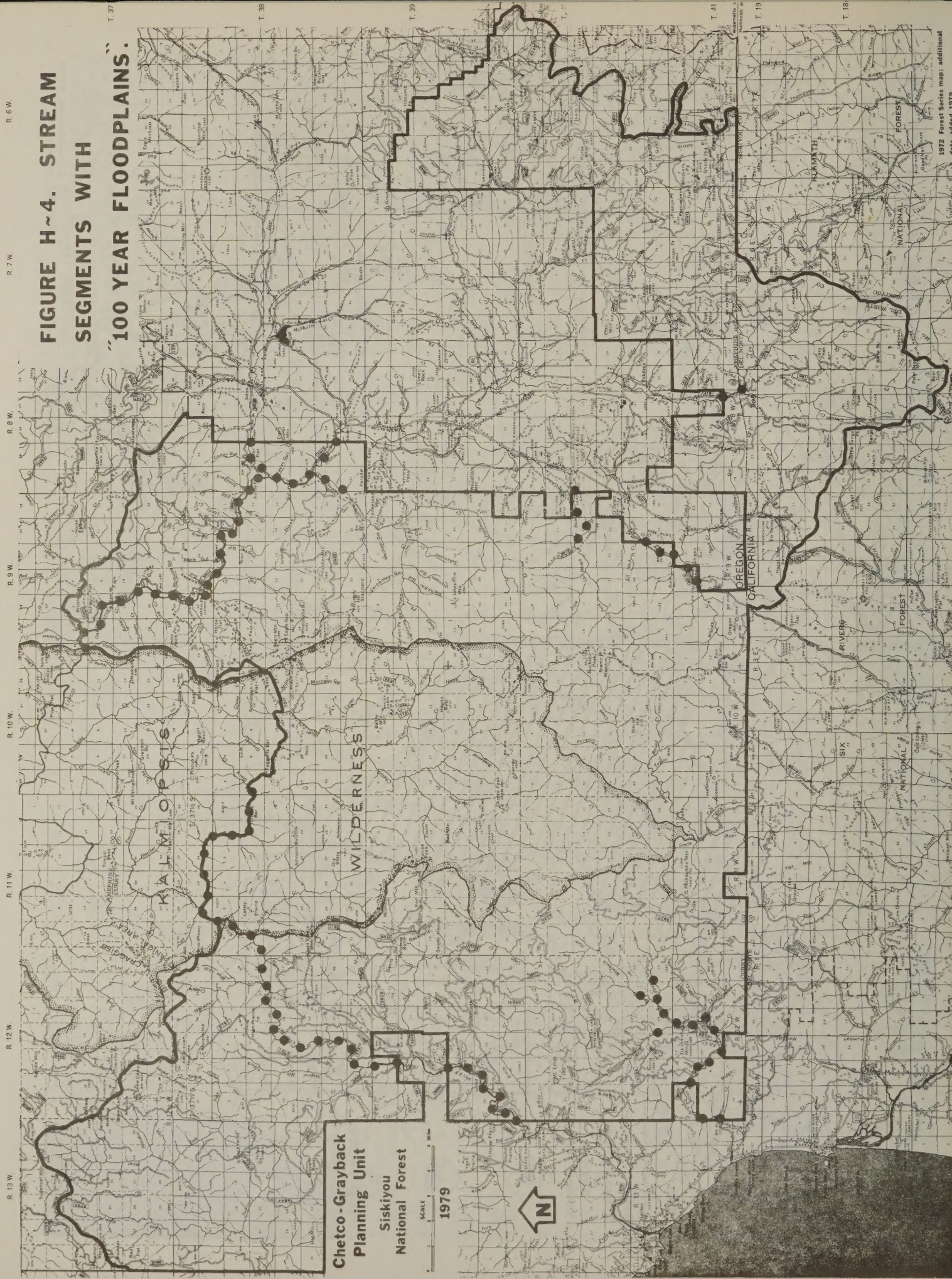
SCALE  
1978



1972 Forest Series map; additional  
data added 1978.



**FIGURE H-4. STREAM  
SEGMENTS WITH  
"100 YEAR FLOODPLAINS."**





## I. Land Ownership

The Chetco-Grayback Planning Unit contains approximately 464,712 acres of National Forest Land and about 24,725 acres of privately owned land. The privately owned land is not subject to the land management planning process.

This Unit contains approximately 55,000 acres of National Forest Land subject to O&C receipts formula. The Oregon and California Railroad lands reverted back to the United States after the railroads failed to live up to the terms of the grant that it had received. The O&C formula lands return 50 percent of the gross receipts to the counties. (An additional 25 percent of the O&C formula funds are returned to the administering agency for resource management.) The remaining 88 percent of the National Forest Land in this Unit returns 25 percent of the net receipts to the counties in lieu of taxes. Table I-1 and Figure I-1 show the distribution of these lands.

The Siskiyou National Forest has had an active land exchange and acquisition program since 1958. Nearly all of the lands acquired have been along the Rogue River in conjunction with the federal Wild and Scenic Rivers program. In this Planning Unit, 104 acres were purchased along the Winchuck River in 1969, 601 acres were exchanged to private ownership in 1973, and 48 acres were acquired to Forest Service ownership by land exchange in 1977. An exchange currently in progress, if completed, will relinquish approximately an additional 200 acres to private ownership; the land to be acquired by the United States in this exchange is in another planning unit.



Cabin Along Illinois River





Mountain Area

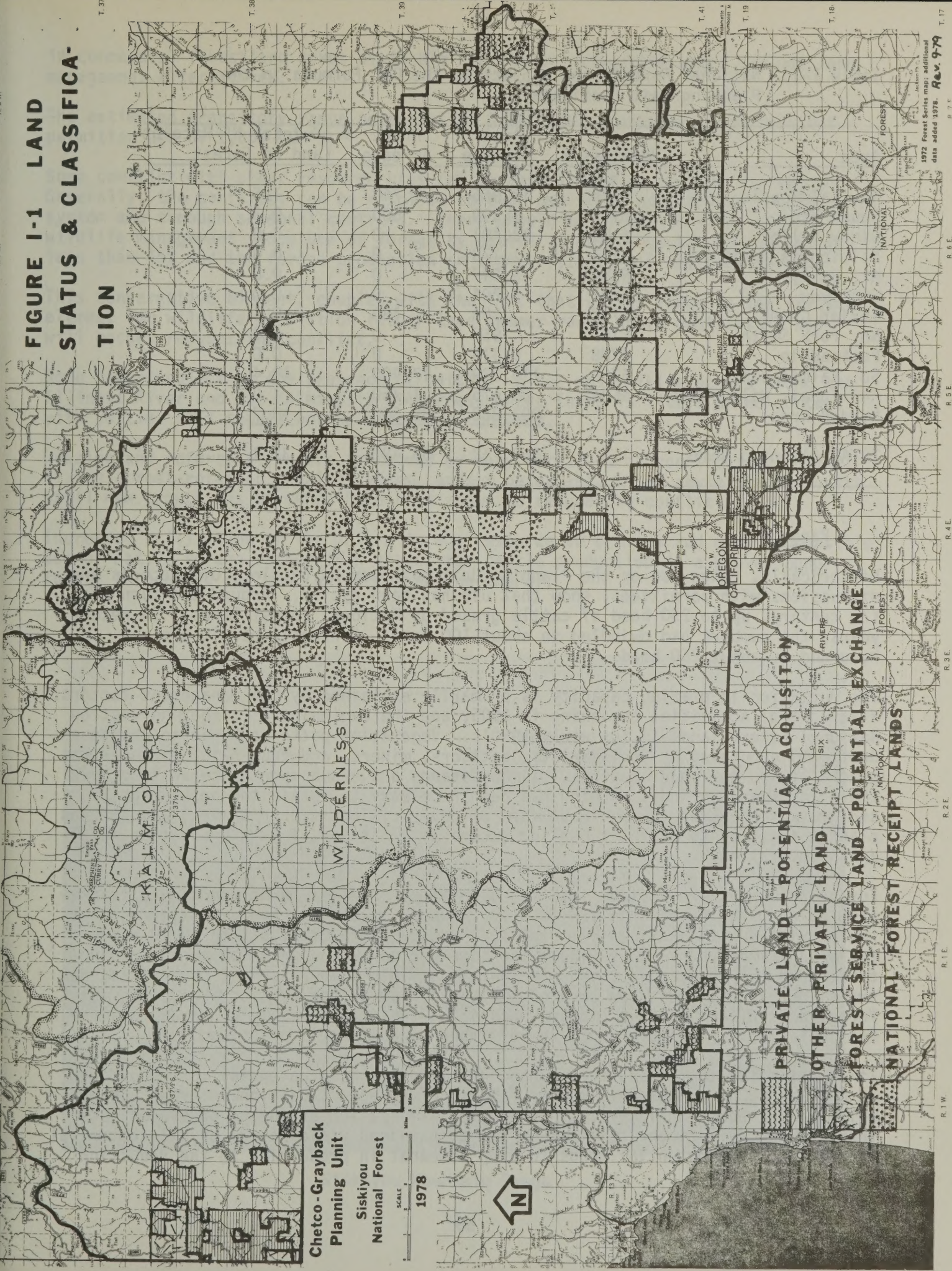
The purposes of the land exchange and purchase program are to consolidate public landownership into more compact and manageable units, reduce the amount of maintenance on public land lines and property corners, to provide the public with recreational opportunities that they might otherwise not have, and to aid in the protection of the watersheds and other resources within the Forest. Fee title purchases of privately owned property in Oregon are subject to approval of the concerned county commissioners and the Oregon State Board of Forest Conservation. In California, the Del Norte County Board of Supervisors is notified of proposed purchases and must approve Receipt Act purchases, and purchases of land involving over \$100,000 require A-95 notification of California state agencies. The United States Congress has a 30-day consideration and approval period of all Forest Service purchases of private land.

The Winchuck River Recreation Composite is an area which includes a portion of the Winchuck River watershed in southwestern Curry County, State of Oregon. A recreation composite is a land acquisition plan designed to assist the Office of Management and Budget (OMB) in establishing priorities for funding federal land acquisition in areas where recreation needs have been identified. Private land purchased in a recreation composite is made on a voluntary basis, is paid with Land and Water Conservation Act funds, and is also subject to county, state, and congressional approval. A copy of the Winchuck River Recreation Composite is on file in the office of the Forest Supervisor, Siskiyou National Forest (File 2320).

Figure I-1 illustrates lands in this Planning Unit which the Forest Service is interested in acquiring, either now or in the future when the opportunity to do so is present, and National Forest Lands which are currently available to be exchanged to private ownership.



**FIGURE I-1 LAND  
STATUS & CLASSIFICA-  
TION**



Chetco-Grayback  
Planning Unit  
Siskiyou  
National Forest

SCALE  
0 5 10 Miles  
1978



PRIVATE LAND - POTENTIAL ACQUISITION  
OTHER PRIVATE LAND  
FOREST SERVICE LAND - POTENTIAL EXCHANGE  
NATIONAL FOREST RECEIPT LANDS



Table I-1. National Forest Land subject to the O&C Formula in the Planning Unit (estimate).

Area	Roadless #	Area Acreage	NF-RL Acreage	% of Total NF-Receipt Land on Forest
No. Kalmiopsis	6176	12,966	2,740	1.6
Squaw Mtn	6179	7,399	600	0.3
Windy Valley	6180	13,491	0	0.0
Kalmiopsis Addition	6183	1,178	0	0.0
Mt. Emily	6184	5,947	0	0.0
Siskiyou	6701	8,294	0	0.0
Indian Creek	6702	950	180	0.1
No. Fork Smith	6707	950	0	0.0
Packsaddle	6708	9,315	0	0.0
So. Kalmiopsis	6709	110,229	17,900	10.4
Kalmiopsis Wilderness	NF042	88,675	1,760	1.0
Roaded Area		<u>293,883</u>	<u>32,300</u>	<u>18.7</u>
TOTAL Planning Unit		464,712	55,480	32.1

#### J. Range

Historically, range use on the Planning Unit has been by cattle. Old records and discussions with permittees, show that use has been cyclic. Around the turn of the century, up to 250 head of cattle grazed on National Forest lands. In recent years, the numbers had dwindled to about 100 head. Currently permit use has returned to about 250 head.

The variation in grazing capacity is primarily explained by two management factors: fire control activities beginning in 1905, and the beginning of timber harvest on National Forest lands in the early 1950's. Vegetation patterns began to change as destructive burning by incindarists, settlers, miners, and from natural causes was gradually brought under control. Timber stands and brush species began to occupy the sites where periodic burning had been necessary to retain the herbaceous and grass species as the dominant form of cover. Since timber harvest also causes plant succession to begin at earlier successional stages, forage production is again increasing.

Forage resources are divided into two general categories: grasslands, and transitory range. The grasslands are locally known as "prairies" and generally owe their existance to shallow soil depths. Transitory range exists for 5-20 years following timber harvest or fire - the time period depending on an area's productivity and the vegetative type. As sustained yield timber harvest progresses, new transitory forage areas are created while older units become less productive for forage as coniferous crown closure occurs. A continuous supply of forage will be available from transitory range where timber management is practiced.

It is estimated that transitory range in this Unit has a potential for producing as many as 3,360 animal unit months (AUM's) of forage. Additional forage use by wildlife has been considered. This assumes utilization of forage on slopes less than 45% and full timber utilization (on a sustained yield basis) of all commercial forestland. The potential tends to drop somewhat in proportion to the reduction



in commercial forestland acres available for timber management under various land management alternatives.

The estimated transitory range potential of 3,360 AUM's compares to the present permitted use of 1,350 AUM's.

Some conflict with other resource uses can be anticipated as grazing increases. Generally, the conflicts can be resolved through use of an appropriate grazing system and through seasonal controls. There should be little conflict with wildlife management since use of forage by cattle is only computed for slopes of less than 45% and the forage production on steeper slopes was not considered.

This conservative element, coupled with the fact that winter range is the critical element for wildlife population rather than summer range where most cattle use will occur, reduces the conflict.

Some hikers object to the presence of cattle. Since most hiking occurs along the Illinois River and the Kalmiopsis Wilderness where there is little or no contact with cattle, this should not be a serious conflict.

Grazing and reforestation are perceived by many foresters as conflicting. Utilizing a rest-rotation grazing system, and/or deferring use on newly planted units until new growth has hardened have been shown to reduce the conflict.

Increased utilization of the Unit's forage resource to provide red meat is possible. Use of native forage rather than grains for cattle production is a proven opportunity to provide red meat while conserving energy.



Siskiyou Mountain Range



## K. Recreation

The ocean, Kalmiopsis Wilderness, coastal rivers, fishing, Oregon Caves National Monument, and a small tributary population are the primary factors affecting recreational use in this Unit.

The renowned Oregon Coast attracts many thousands annually. Through the summer months cold northwest winds or fog are frequent along the shore. Travelers often go three to five miles inland along the coastal streams such as the Winchuck, Chetco, and Pistol Rivers, and commonly enjoy sunny weather, 60-70 degrees F. temperatures, and swimming in 60-70 degrees F. streams. This weather contrast contributes heavily to recreational use on the West Side of the Forest. During fall and winter months, quality steelhead and chinook salmon fishing similarly attract the public.

Compared to other Wildernesses, the Kalmiopsis is lightly visited. Its unusual flora and the headwaters of the Chetco River, are its primary attractions. Its primary restrictions on use are the rugged, broken, topography, hot and dry summer weather, and difficulty of travel. Nevertheless, its national designation as Wilderness and its inherent qualities cause it to be a central factor for the management of recreational use on the Planning Unit.

Another factor affecting recreational management is the National Park Services, Oregon Caves National Monument. The Monument is surrounded by the Siskiyou National Forest. Therefore, the 200,000 annual visitors pass through the Forest. Grayback Campground, located on the route to the Monument is the heaviest used campground on the Forest. The National Forest area receives substantial use from the Grants Pass-Medford area.

Land forms and character also have a bearing on the area's desirability for recreational use. The areas adjacent to the coast are relatively verdent, rolling, low elevation, and productive terrain. The area south and east is rolling, quite barren, but interesting, botanically, due to its serpentine-peridotite geology. These characteristics portray a very harsh environment. The eastern portion of the Unit is productive, rises higher in elevation, with strongly defined ridges and draws. It provides a diversity in elevation, cover types and uses.

About 49 percent of the Kalmiopsis Wilderness (88,675 acres) lie within the Planning Unit. Most of the Wilderness use occurs within the portion of the Kalmiopsis that lies within the Planning Unit.

Table K-1. Planning Unit Recreational Use by Activities. 1/

Activity	Visitor-Days Use
Motorized Travel	111,000
Camping and Picnicking	196,000
Water Sports	26,000
Fishing	35,000
Hunting	15,000
Hiking, Riding, Climbing	14,000
Gathering Forest Products	4,000



## Activity (cont'd)

## Visitor-Days Use

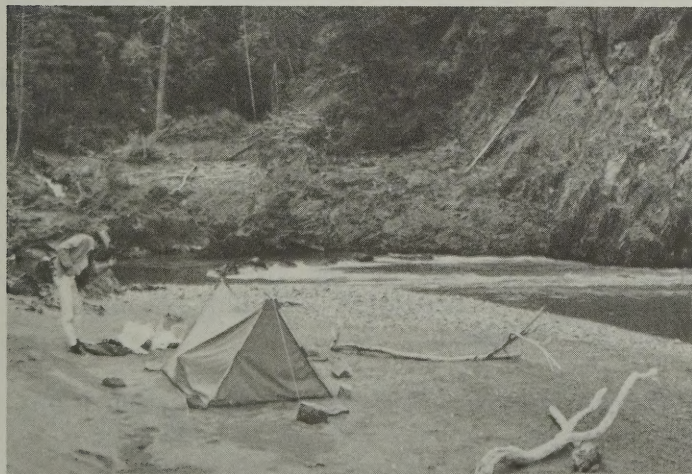
Nature Study	1,000
Winter Sports	2,000
Viewing Scenery	1,000
Other	9,000
Total	414,000

- 1/ Source: R.I.M., Siskiyou National Forest for Illinois Valley and Chetco Ranger Districts. The Planning Unit does not conform exactly to these administrative units. The statistics are judged to be the best available representation of Planning Unit use.

As shown in Table K-1, recreational use in 1975 amounted to 414,000 visitor-days (a visitor-day is a 12-hour day of recreational use and can be one person for 12 hours or 12 people for one hour, etc.). Between 1970 and 1975 recreational visitor-days increased from 257,000 to 414,000, a 60% increase, or about 12% increase per year. During this interval use at developed campgrounds has actually declined by 8000 visitor-days. The reason for the decline is partly explained by the closing of one campground installation and better traffic controls in others that limit use to the defined camp units. Other factors include the desire by many to camp in unstructured situations where rules are fewer.

Recognition of this trend and the realization that our greatest recreational asset is simply the vast size of the National Forest has led to a policy in the Forest Service to emphasize dispersed forms of use. Dispersed recreation includes all those forms of recreation that occurs outside of constructed recreational facilities such as driving for pleasure (one of the greatest uses), hiking in a Wilderness, fishing, and many others. Future campground construction will be limited on this Unit. However, commercial and State-owned facilities along the coast and commercial facilities along highways adjacent to the Unit are expanding to provide for the needs of RV (recreational vehicle) campers.

The policy emphasizing dispersed types of use agrees with recent "Oregon Outdoor Recreation Demand Bulletin" 1/ demand projections for Josephine and Curry counties.



The projections do not include use by out-of-state people. This use is substantial in the Planning Unit and is a direct result of the area's nationally known features, and the proximity of California. SCORP also shows that Oregonians have shifted their recreational pursuits to save fossil fuels because of the energy crisis. Recreational travel has

- 1/ Technical Document I of Statewide Comprehensive Outdoor Recreation Plan - Parks and Recreation Branch, Department of Transportation, September 1976.

Dispersed Recreation on Illinois River



decreased. This factor will affect use patterns in S.W. Oregon since our tributary population is small. This factor indicates Wilderness and other forms of back-country use will probably grow at a percentage rate similar to local population growth. Informal uses like driving for pleasure will be similarly influenced. Short car-oriented camping trips by local residents will probably increase at a rate somewhat greater than local growth. Use by out-of-state people should increase more slowly than general population increases.

Table K-2. Planning Unit Recreation Facilities.

Site	Facility Type	Capacity (People At One Time)
Winchuck	Campground	80
Long Ridge	Campground	10
Little Redwood	Campground	80
Red Mtn. Prairie	Campground	10
Store Gulch	Campground	15
Sourdough	Campground	25
Grayback	Campground	220
Cave Creek	Campground	80
Bolan Lake	Campground	40
Tannen Lake	Campground	15

The Siskiyou Forest Off-Road Vehicle (ORV) Management Plan dated September 29, 1977, was developed in accordance with the February 8, 1972, Executive Order 11644. It outlines policies and procedures which will ensure that the use of off-road vehicles (ORV's) will be controlled and directed to protect the resources, promote the safety of users, and minimize conflicts among the various uses. On the Chetco-Grayback the areas to be closed to protect range productivity, wildlife, plant communities, and sensitive soils are the following:

Bigelow Lakes Area and Trail	Kerby Flat Area
Wheeler Creek Research Natural Area	Josephine Creek
Red Mtn Prairie	Kalmiopsis Wilderness
Long Ridge Area	Pyrimid Rock Area
High Prairie	Red Flat

All closures and restrictions are signed at the area to inform the public. An Environmental Analysis Report for Off-Road Vehicle Management was issued February 25, 1977.

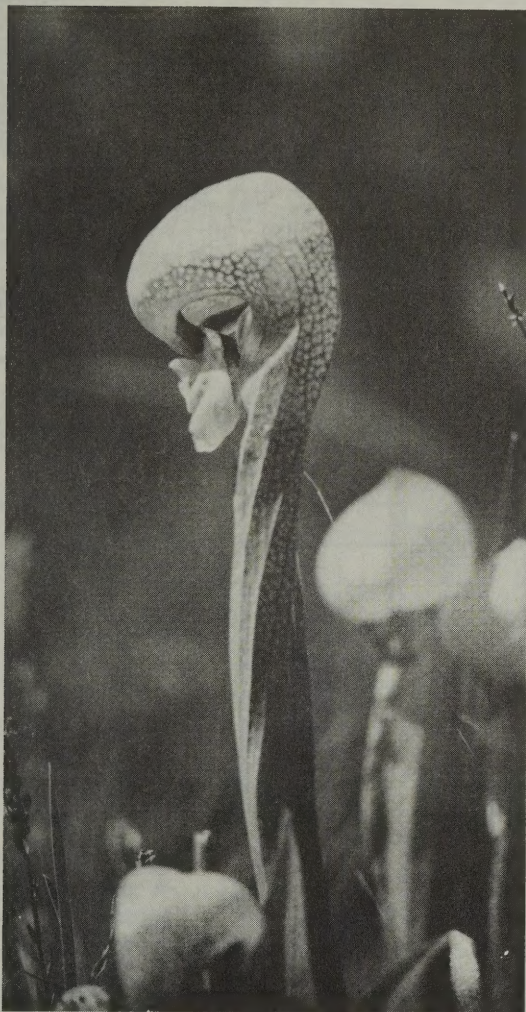
#### L. Research Natural Area

Research natural areas are natural ecological reserves designated for the preservation of unique ecosystems, habitat, or organisms for research and educational purposes. The objectives for these areas are as follows:

1. To preserve examples of all significant natural ecosystems for comparison with those influenced by man.
2. To provide educational and research areas for ecological and environmental studies.



3. To preserve gene pools for typical, rare and endangered plants and animals.



California Pitcher Plant  
(*Darlingtonia californica*)

The 334 acre Wheeler Creek Natural Area reserves an example of Redwood - Douglas-fir forest near the northern range of the redwood species.

The Hoover Gulch RNA has been proposed to reserve an example of a mixed-evergreen forest (Douglas-fir - evergreen hardwoods). An establishment report is currently being prepared for this area. The final report will be reviewed by the Forest Service for future establishment.

Another area of interest to the RNA committee is the proposed Lemingworth Gulch RNA. Although the boundary has not been finalized, the RNA committee identified priority forest type cell needs that the area could fulfill. The needs are recognized in Table 53 of the report "Research Natural Area Needs in the Pacific Northwest" <sup>1/</sup> and are as follows:

- " 8. Mixed-evergreen forest (Douglas-fir and evergreen hardwoods).
- 9. Tanoak-Mad. one forest.
- 11. Knobcone pine.
- 16. Jeffrey pine-grass on serpentine soils at high elevation.
- 17. Port-Orford cedar - Douglas-fir on serpentine soils.
- 18. Serpentine vegetation matrix and normal soil island with good representation of contrasts."

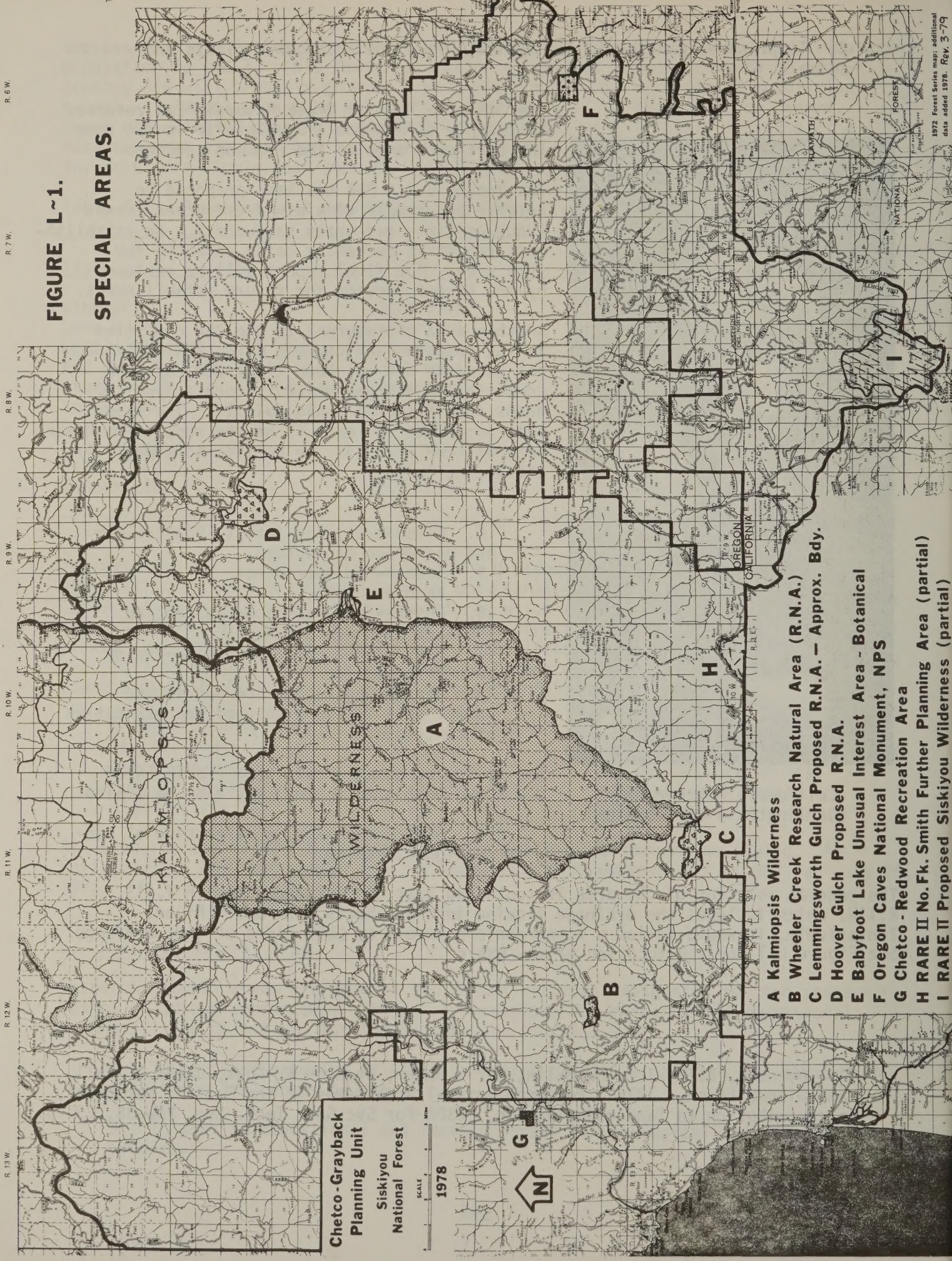
The following aquatic cell need (Table 54 of the above mentioned report) may also be filled:

- "10. Stream drainage in serpentine at mid-to high-elevation."

The general location of the area is south and east of Packsaddle Mtn in T.41S. R.11W. which includes the drainage flowing into the North Fork Smith River. Tentatively, it would follow a topographic boundary on both sides of this drainage. See Figure L-1 for the location of the RNA's.

<sup>1/</sup> Dyrness, C.T., J.F. Franklin, Chris Maser, Stanton A. Cook, James D. Hall, and Glenda Faxon. 1975. Research Natural Area needs in the Pacific Northwest, a contribution to land-use planning. USDA For Svc Gen. Tech. Rep. PNW-38, 231 p.

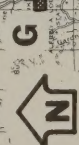




**FIGURE L-1.**  
**SPECIAL AREAS.**

**Chetco-Grayback  
Planning Unit**  
**Siskiyou  
National Forest**

SCALE  
0 1 2 Miles  
1978



- A** Kalmiopsis Wilderness
- B** Wheeler Creek Research Natural Area (R.N.A.)
- C** Lemmingsworth Gulch Proposed R.N.A. - Approx. Bdy.
- D** Hoover Gulch Proposed R.N.A.
- E** Babyfoot Lake Unusual Interest Area - Botanical
- F** Oregon Caves National Monument, NPS
- G** Chetco-Redwood Recreation Area
- H** RARE II No. Fk. Smith Further Planning Area (partial)
- I** RARE II Proposed Siskiyou Wilderness (partial)



## M. Presently Undeveloped Areas

The Roadless Area Review and Evaluation (RARE) began in 1972 and provided the first national look at possible areas for wilderness in the National Forest system. The process provided a uniform set of standards to evaluate roadless areas of 5,000 acres or more and smaller areas adjacent to existing wilderness. In 1977, the inventory was revised by adding new areas and areas adjacent to previously identified roadless areas. These areas have more irregular boundaries that allow peninsula-shaped roaded intrusions rather than following more significant topographic features that exclude indentations. The total inventoried roadless area for the Forest is 339,794 acres.

This new program was referred to as RARE II. The objectives of RARE II were threefold:

1. Identify and propose for immediate classification, roadless and undeveloped areas that can contribute to a quality National Wilderness Preservation System.
2. Determine which roadless areas should receive no further consideration as wilderness, but should be devoted to non-wilderness uses.
3. Identify areas that require further planning before a decision can be made.

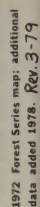
Table M-1. List and Acreage of Roadless Areas.

Area Name	RARE II No.	Acreage
No. Kalmiopsis	6176	13,120
Squaw Mtn	6179	7,399
Windy Valley	6180	13,491
Kalmiopsis Addition	6183	1,178
Mt. Emily	6184	5,947
Siskiyou	6701	8,294
Indian Creek	6702	950
No. Fork Smith	6707	1,135
Packsaddle	6708	9,315
So. Kalmiopsis	6709	110,229
TOTAL		171,058
Kalmiopsis Wilderness	NF042	88,675
GRAND TOTAL Roadless Area		259,733

Certain intrusions into the "roadless areas" exist. These are largely evidence of old mining activity and roads. The roads were either missed in the original inventory or were thought to be mere "cat tracks" where no substantial cutting or filling was done during their construction. A description of the individual roadless areas can be found in the Appendix.



T. 37



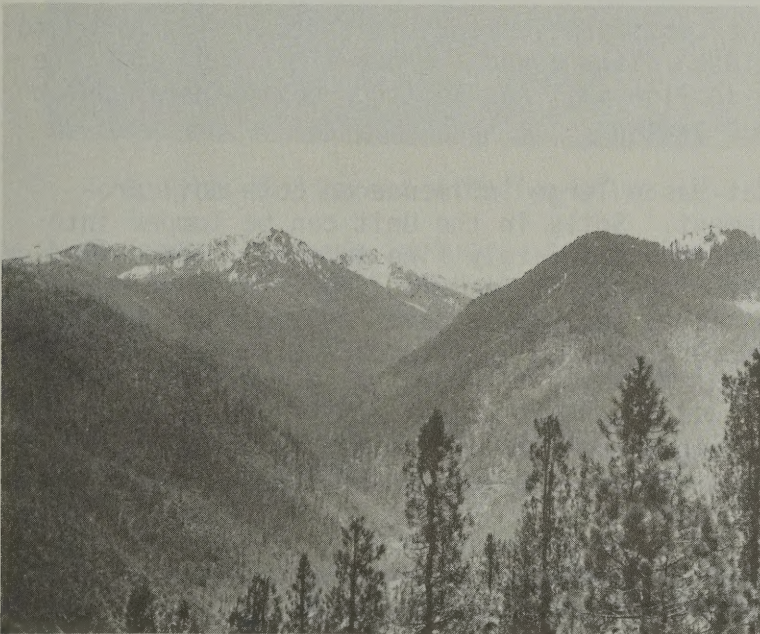
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SCALE 1



RARE II had four main phases:

1. Inventory - This phase is now complete. It consisted of taking a fresh and complete look at the National Forest System to develop a new inventory of roadless and undeveloped areas. This new inventory updated the inventory completed in RARE I for the West, including Alaska. It also included an inventory of National Forest undeveloped areas in the Eastern United States and on National Grasslands.
2. Review and Evaluation of Individual Areas - This phase involved the collection of resource, social, and economic data on each of the roadless areas. Such information was summarized in mathematical and narrative form, and has been used to develop land allocation alternatives and to compare one roadless area against another in terms of their wilderness potential.
3. Draft Environmental Statement - A draft ES was prepared after the information in Phase 2 was collected. The Forest Service intent is to present a very broad range of alternatives for public scrutiny. The Draft Environmental Statement was made available to the public on June 15, 1978.
4. Final Environmental Statement - This last phase in the process was to prepare a final ES (January 15, 1979) which recommended to Congress areas to be designated as Wilderness, further planning and those that should be devoted to other uses.



Roadless Area No. 6701 (Siskiyou)

The proposed action for allocation of National Forest System land to wilderness takes into consideration the relationship with the entire National Wilderness Preservation System, including lands administered by National Park Service, Bureau of Land Management, and Fish and Wildlife Service.

On this Planning Unit, 4,950 acres of land in the Siskiyou roadless area (6701) was recommended for wilderness. Another 950 acres in the North Fork of Smith River roadless area (6707) was recommended for "further planning." The remaining roadless areas will receive no further consideration as wilderness, but will be devoted to non-wilderness uses.

## N. Soils

Soils are a fundamental component of the environment. All renewable surface resources of the National Forest are dependent upon soil, which is a non-renewable resource. Soil along with soil related features, such as subsoil moisture, duff cover, topography, and bedrock determines the lands inherent productivity and also



its susceptibility to incur effects which reduce this productivity. Forest resource management is directed towards the conservation and wise use of the soil resource in order to ensure high-level, sustained yields of water, timber, recreation, wildlife and forage.

Soils in the Unit were mapped during the Soil Resource Inventory (SRI). The objective of the SRI is to provide basic soil, bedrock, and landform information in a form useful to the Land Manager and as an aid to multiple use management.

A wide range of soil characteristics are found in the Unit. Large variations exist in natural stability, surface erosion potential, soil depth, texture, drainage, duff thickness and moisture content. The nature and complexity of the soils in the Unit influence such management decisions as harvest systems, road access, slash disposal and regeneration.

The two processes which have the greatest effect on the soil resource on the Siskiyou National Forest are surface soil erosion and mass wasting. Surface erosion causes a loss of soil productivity and is a source of stream sediment. Surface soil erosion potential is highest on steep rugged terrain where surface soil cohesion is low and litter layers are thin.

Mass wasting commonly occurs along geologic contacts, fault zones, highly fractured parent materials, in areas of moisture accumulation and in areas of stream channel cutting of toe slopes. Unstable soils are generally deep wet and clayey.

Soil depth is an important management consideration in this Unit. As compared to a deep soil, a shallow soil stores less moisture and therefore has less moisture available for vegetative growth. A shallow soil has limited rooting depth which may reduce growth and contribute to blowdown.

Soil texture is a characteristic that has a large influence on both soil productivity and its response to management. Soils in the Unit can be lumped into three textural units: 1) clayey (fine and moderately fine texture), loamy (medium textured), and sandy (moderately coarse-to-coarse textured). On soils of equal depth a sandy soil as compared to a clayey soil would have less moisture holding capacity, dry out faster, be usually more stable, less compactible, less fertile, and more erodible.

The amount of soil moisture and the length that it is retained influences productivity, species adaptability, regeneration, and susceptibility to compaction and sedimentation.

Litter on the soil surface serves several important roles including shading, reducing rain drop impact, and slowing overland flow.

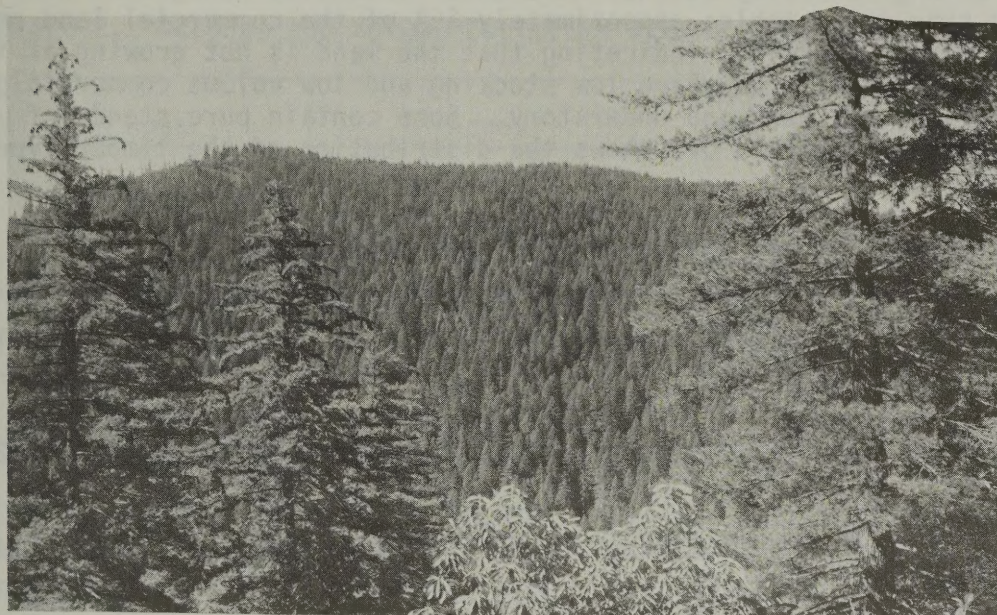
Organic matter also plays important roles in both the physical and the chemical properties of the soil. These properties control water movement, nutrient status, available plant water storage, soil stability, and the general life of the soil.

Valuable soil resources will also be protected and restored through implementation of E0 11988 Floodplain Management and E0 11990 Protection of the Wetlands.



## 0. Timber

The Planning Unit lies in a transition zone where species common to the Pacific Northwest and to California merge. The large variation in climatic conditions and soil types coupled with a severe fire history has greatly influenced the vegetation cover in relation to site, density and species composition. Many different species of plants exist here. Over 1,400 plant species have been identified by Siskiyou National Forest personnel and many of these can be observed on this Planning Unit.



Douglas-fir Forest with Two White Pine in Foreground

Douglas-fir is the primary sawtimber species on this Planning Unit. It grows in association with several coniferous species: sugarpine, Port-Orford-cedar, western hemlock, white fir, incense-cedar, knobcone pine, Jeffrey pine, ponderosa pine, white pine, western redcedar, Brewer spruce, grand fir, Shasta red fir, Pacific yew and redwood.

Associated hardwoods include: tanoak, red alder, Pacific madrone, golden chinkapin, canyon live oak, California live oak, white oak, black oak, willow, bigleaf maple, dogwood, and Oregon-myrtle.

These species make up the Forest timber types existing today. A past history of fires in the Unit has left a diverse pattern of vegetative cover. According to reports passed on by early settlers, fire was a convenient way to clear the ground for prospecting. Packers and freighters set fires to make travel easier and Indians used fire in warfare. Fires were set to clear land, to kill woodticks, to improve grazing, or used just because it seemed to be a good idea. Because of these burning practices or the lack of effective control methods during the early history of the Forest, thousands of acres were repeatedly burned. Tanoak, which has been known to sprout and grow from 4 to 12 feet in one season, occupied many of the sites immediately after the burn. As a result large stands of tanoak now exist throughout the western portion of the Unit. Other partially burned areas subsequently evolved into various stages of plant succession.

These timber type acres are estimated on Table 0-1. The acres were determined by planimentering the areas on a forest type map. Volumes were estimated by using inventory plots, aerial photos, and timber harvest units in similar types in the surrounding area.



The productivity of the land is measured by its site index which is a relationship between height and age. High site index measurements are directly dependent on the site quality or physical characteristics of the forest area such as soil, rainfall, temperatures, altitude, slope and aspect. To what degree each physical characteristic influences the growth cycle is not completely known. However, it is known that favorable combinations of these factors are essential for high productivity.

The average site index for this Unit is 100. By knowing the site index we can predict the yield on a given fully-stocked acre under intensive management conditions. Based on site index tables approximately 26% of the commercial land on this Unit is below normal stocking, indicating that the land is not growing at its full capacity. Some of these areas have low stocking and low volume commercial or merchantable conifers with a hardwood understory. Some contain pure stands of tanoak or other hardwoods. Figure 0-1 shows the distribution of the timber types on the Planning Unit.

Table 0-1. Estimated Acreage and Conifer Volume by Timber Type.

Forest Timber Type	Acreage <u>1/</u>	% Acreage	Volume (MBF)	% Volume
Large old growth sawtimber over 21 inches DBH - well stocked.	24,413	6.5	1,025,046	22.6
Same as above except medium stocked.	57,469	15.2	2,021,378	44.6
Same as above except poorly stocked.	74,497	19.8	657,595	14.5
Small sawtimber 11 to 21 inches DBH, well and medium stocked.	36,946	9.8	831,387	18.3
Other coniferous stands including harvest units.	59,981	16.0	Unest.	Unest.
Scrub pine areas (knobcone, white, lodge pole).	39,953	10.6	Unest.	Unest.
Hardwood stands.	33,281	8.9	Unest.	Unest.
Brushland and grasslands.	13,782	3.7	0	0
Non-Commercial rocky areas and cliffs.	35,715	9.5	0	0
	<u>376,037</u> <u>2/</u>	<u>100.0</u>	<u>4,535,406</u>	<u>100.0</u>

1/ Acres as of 1967.

2/ Total does not include 88,675 acres of Kalmiopsis Wilderness.



The Unit contains an estimated 4.5 billion board feet of merchantable timber volume. It contributes approximately 58 million board feet to the annual programmed harvest. Since 1972 the harvest areas have been confined to the land base (44 percent) outside the wilderness and roadless areas. The estimated annual gross value (selling value and overbid) is 31.8 million dollars based on Fiscal Year 1977 and 1978 timber sales. This includes an overbid of approximately 7.0 million dollars. The overbid is the difference between the advertised rate and the high bid rate of the purchaser. Table 0-2 and Figure 0-2 shows the distribution of volume on the Planning Unit by area.

Table 0-2. Acreage and Volume Estimates Within the Planning Unit.

RARE II No.	Area	Acres	Volume (MBF) 1/	Volume/Acre (MBF)
	Roaded Areas:			
	Pistol	54,598	768,561	14.1
	Winchuck	40,619	761,825	18.8
	Sixmile	25,857	69,811	2.7
	Grayback	83,905	1,599,048	19.1
	Subtotal	204,979	3,199,245	15.6
	Inventoried			
	Roadless Areas:	171,058	1,336,161	7.8
NF042	Kalmiopsis Wild.	<u>88,675</u>	<u>2/</u>	<u>-</u>
GRAND TOTAL		464,712	4,535,406	9.8

1/ Volume was estimated from timber type maps.

2/ Excludes an estimated 354,568 MBF of reserved volume in Kalmiopsis Wilderness.

The old growth currently existing on the unit ranges in age from 160 to 400 years old. Most trees in this age class, which is the bulk of the programmed harvest, show signs of overmaturing to the point that their growth has slowed, they are vulnerable to wind damage, and they are very susceptible to insects and disease attack; however, younger trees are usually more vigorous even in their natural unmanaged conditions.

The optimum management conditions of a timber stand are controlled by the number of trees and the desired growth rate. Stocking level control is achieved by removing the excess trees which are diseased, damaged, or suppressed. By maintaining a given number of dominant and codominant trees on the area the expected yield can easily be predicted for a given period of time; therefore, if the stand is controlled from the time of establishment, more timber can be produced than could be under natural forest conditions.

Generally, if areas are incapable of producing at least 20 cubic feet per acre of annual growth, it is considered unproductive forestland. This land, plus poorly productive land (50 cubic feet/acre/year or less), comprises about 29.5 percent of the acres in the Unit. The land in the 20-50 cubic feet/acre/year will be managed over a 160 year rotation or until culmination of the mean annual increment while the remainder of the coordinated resource management area will be managed on approximately a 90 year rotation.



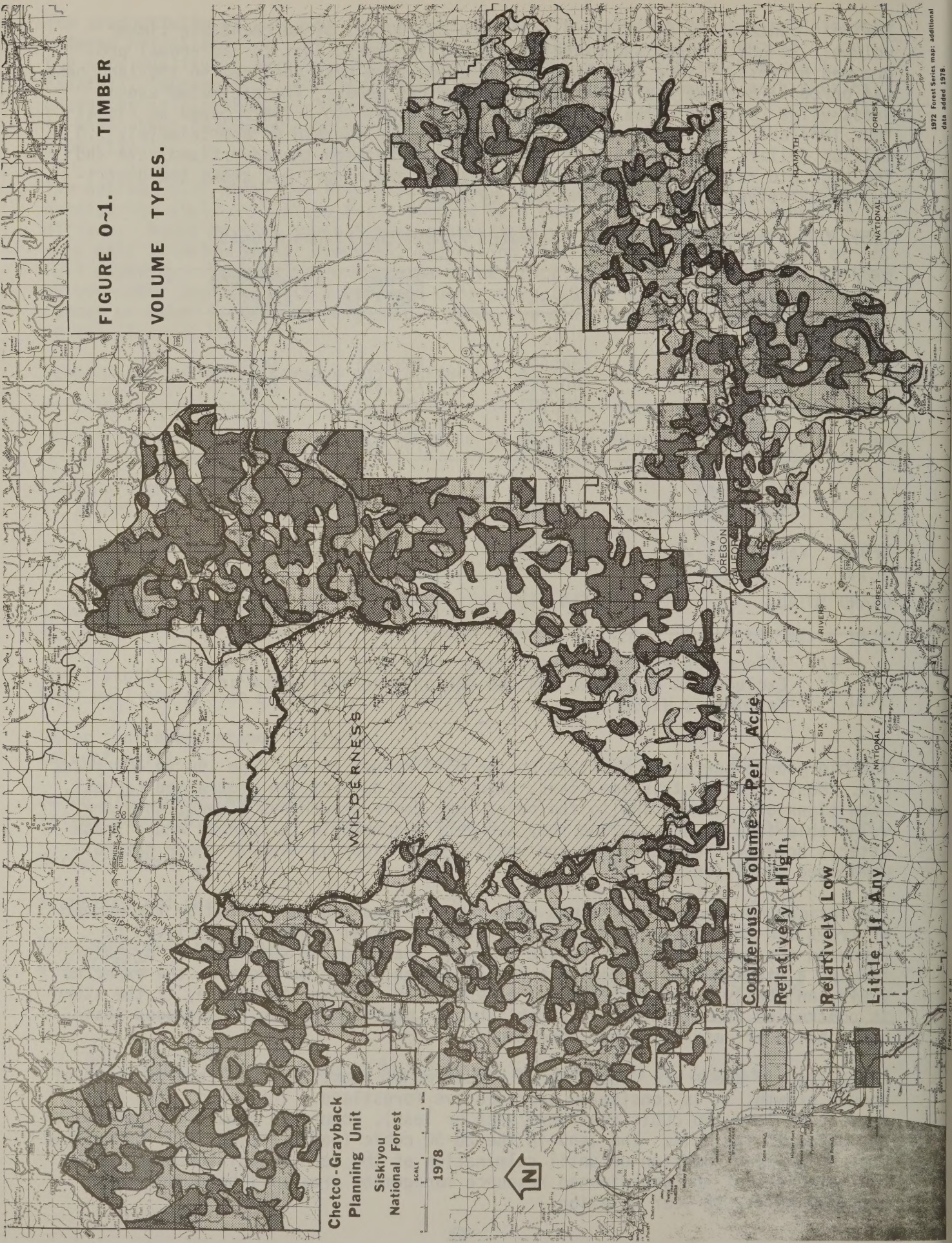


FIGURE 0-1. TIMBER  
VOLUME TYPES.

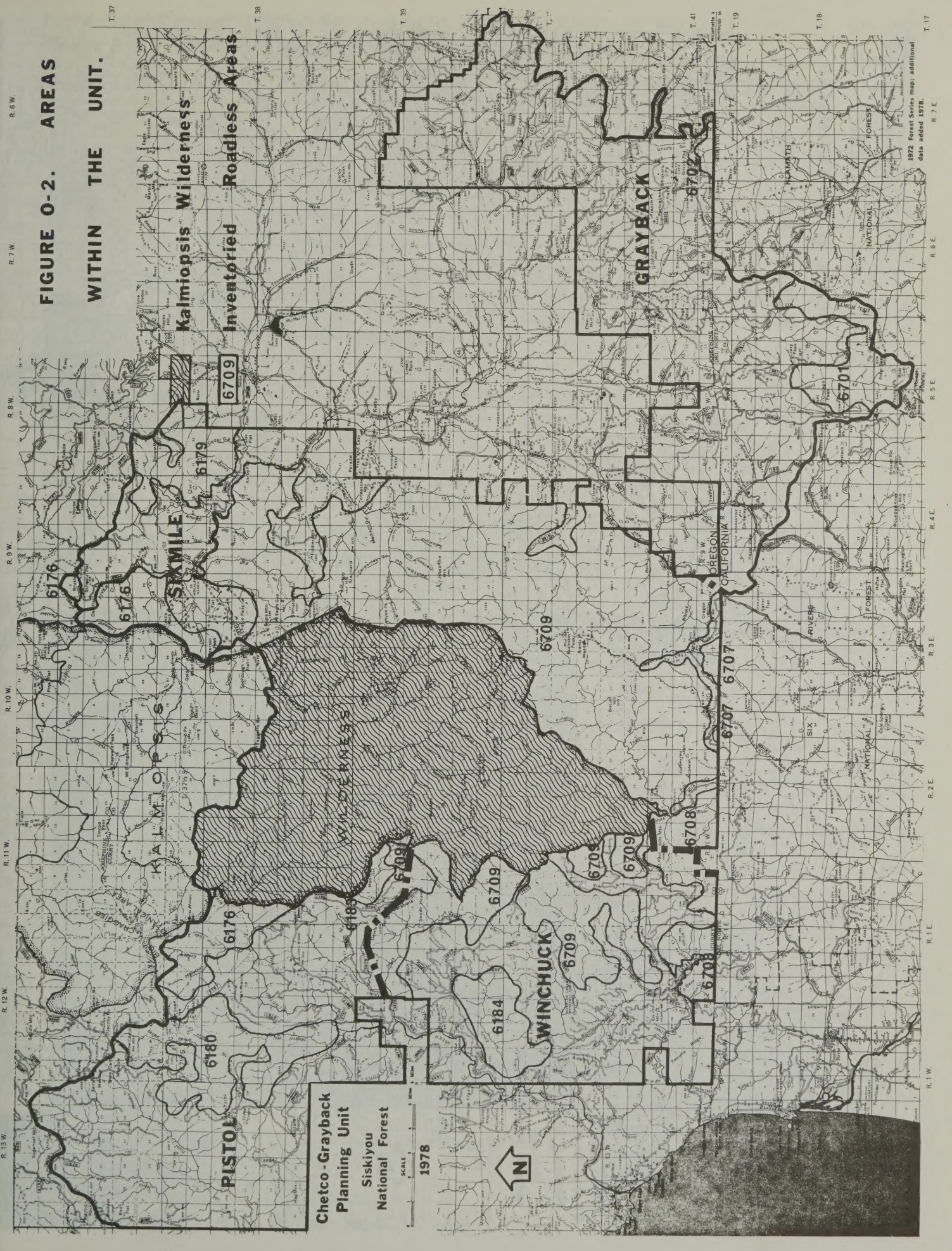
Chetco-Grayback  
Planning Unit  
Siskiyou  
National Forest

SCALE  
0 5 10  
Miles  
1978



Coniferous Volume Per Acre  
Relatively High  
Relatively Low  
Little if Any





**FIGURE 0-2. AREAS WITHIN THE UNIT.**

Chetco-Grayback  
Planning Unit  
Siskiyou  
National Forest

1972 Forest Series map; additional  
data added 1978.



**FIGURE 0~3. ESTIMATED  
TIMBER ~ GROWING  
POTENTIAL.**

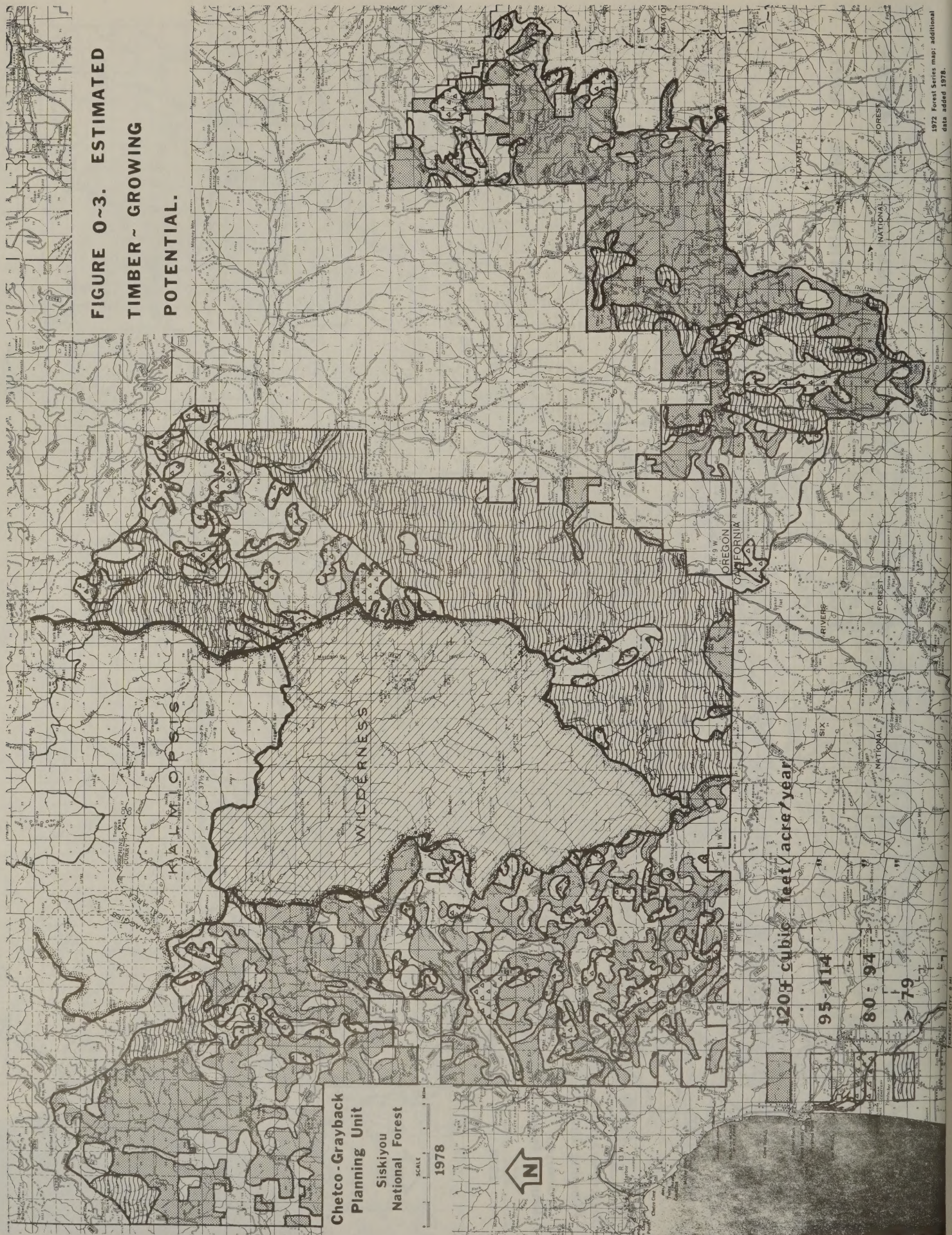




Table 0-3. Productivity of Land for Growing Timber.

Productivity Class <u>1/</u>	% of Unit <u>2/</u>	% of U.S. Forest Land <u>3/</u>
120 ft <sup>3</sup>	34.3	6.9
85-119 ft <sup>3</sup>	27.6	15.4
50-84 ft <sup>3</sup>	8.6	25.9
Less than 50 ft <sup>3</sup>	29.5	51.8
	<u>100.0</u>	<u>100.0</u>

- 1/ Productivity class in cubic feet per acre per year.  
2/ Estimated percent acres in each class under managed conditions.  
3/ Source: U.S. Forest Service. 1973. Outlook for Timber in the United States. Washington, D.C.

Table 0-3 indicates the relative productivity of the Unit by productivity class. Also, these statistics can be compared with National statistics for all forest land. Figure 0-3 shows the timber growing potential on the Unit.

Utilizing intensive management techniques such as immediate planting, brush control, and stocking level control can increase growth rates over the natural succession of growth on most of these lands with the greatest benefits being obtained on the higher sites. Genetically improved seedlings and fertilization are other management tools used to stimulate growth.



View of Old-Growth Timber as Hikers Use Trail to Oregon Caves

#### P. Transportation System

The major components of the transportation systems in this Planning Unit are trails and roads.

With the exception of some high elevation ridges, dense brush and steep slopes make cross-country travel difficult to nearly impossible without a trail network. The trail system in the Unit, as elsewhere on the Siskiyou National Forest, evolved from aboriginal Indian trails. These primitive trails were further developed by early settlers to serve isolated homesteads and mining areas. Following creation of the Forest in 1906, many administrative trails were developed; primarily for fire protection purposes.



As development of the area progressed, many miles of trails were replaced with administrative, mining, and timber sale roads. Advancing aerial fire suppression techniques further reduced the need for trails. However, in recent times recreational use of trails has been growing and now constitutes the primary use of the existing trail system. Figure P-1 shows the existing trail system. Table P-1 lists the major trails within or partially within the Unit boundaries. Table P-2 lists the mileages by kind of trail user within the Unit.

Table P-1. Major Trails in the Planning Unit.

Trail Name	Trail Number
Babyfoot Lake Trail	1124A <u>1/</u>
Bailey Mountain Trail	1109 <u>1/</u>
Chetco Divide Trail	1210 <u>1/</u>
East Fork Illinois River Trail	1274
Emily Cabin Trail	1129 <u>1/</u>
Hazel Camp Trail	1106
Johnson Butte Trail	1110 <u>1/</u>
Kalmiopsis Rim Trail	1124 <u>1/</u>
Little Chetco Trail	1121 <u>1/</u>
North Fork Smith River Trail	1233 <u>1/</u>
Redwood Nature Trail	1111
Snow Camp L.O. Trail	1103
Tin Cup Trail	1117 <u>1/</u>
Upper Chetco Trail	1102 <u>1/</u>
Vulcan Lake Trail	1110A <u>1/</u>

1/ All or partly within the Kalmiopsis Wilderness.

Table P-2. Trail Mileage in the Unit by Kind of Trail User.

Kind of Trail User	Mileage <u>1/</u>
Combination of Users <u>2/</u>	115
Pack and Saddle Horse, Hiker	110
Hikers Only	10
Total	<u>235</u> <u>3/</u>

1/ Countless miles of abandoned trails and forgotten Indian trails, which are partially overgrown with vegetation, are scattered about the Unit. These are not accounted for in this table.

2/ Motorized vehicle, pack and saddle horse, hikers.

3/ Approximately 110 miles are within the Kalmiopsis Wilderness.

The existing trail network includes both high and low elevation trails and intermediate links. Most trails can be travelled nearly all year long, but the higher elevation trails are susceptible to temporary snow closures during the winter.





Old Redwood Highway from Grants Pass to  
Crescent City

Some areas have use restrictions placed upon them to control or to prohibit motorized vehicles and/or pack and saddle horse use. These restrictions limit season of use or to totally prohibited certain uses, such as motorized vehicle use within Wilderness Areas. The intent is to protect resource values, promote user safety and reduce user conflict. For more detailed information see the Forest Off-Road Vehicle Plan dated September 29, 1977.

Many non-primary trails have fallen into some degree of disrepair due to a reoccurring shortage of adequate trail maintenance funds. But, with the current emphasis on recreational trail development, current manpower programs and increased funding many of these trails are gradually being restored to standard.

To carry out the programs and activities of the Forest Service there is a need to plan, design, construct, maintain, and operate

an extensive transportation system. On this Forest, most of this system is in the form of roads. Roads are simply the means to do a job, not the end product.

Table P-3 lists the major roads in the Unit while Table P-4 summarizes the road mileage by type of surfacing material.



Table P-3. Major Roads in the Planning Unit.

Name	Road Number
Bolan Lake Road	413
Chetco Divide Road	370
Chetco Pistol Road	3846
Chetco River Road	376
Grayback Road	3941
Illinois River Road	3504
Illinois Valley Highway	4007
Long Ridge Road	3917
Onion Camp Road	3843
Oregon Caves Highway	46 (State)
Pollywog Butte Road	3909
Redwood Highway	U.S. 199
Winchuck Chetco Road	3907

1/ Identified in Figure P-2 by large numbers.

Table P-4. Road Mileage in Unit by Surfacing Type. 1/

Surfacing Type	Road Mileage
Asphalt Pavement	10
Aggregate	540
Unsurfaced (Graded and Drained)	200
Primitive-Type	40 <u>2/</u>
Total	<u>790</u>

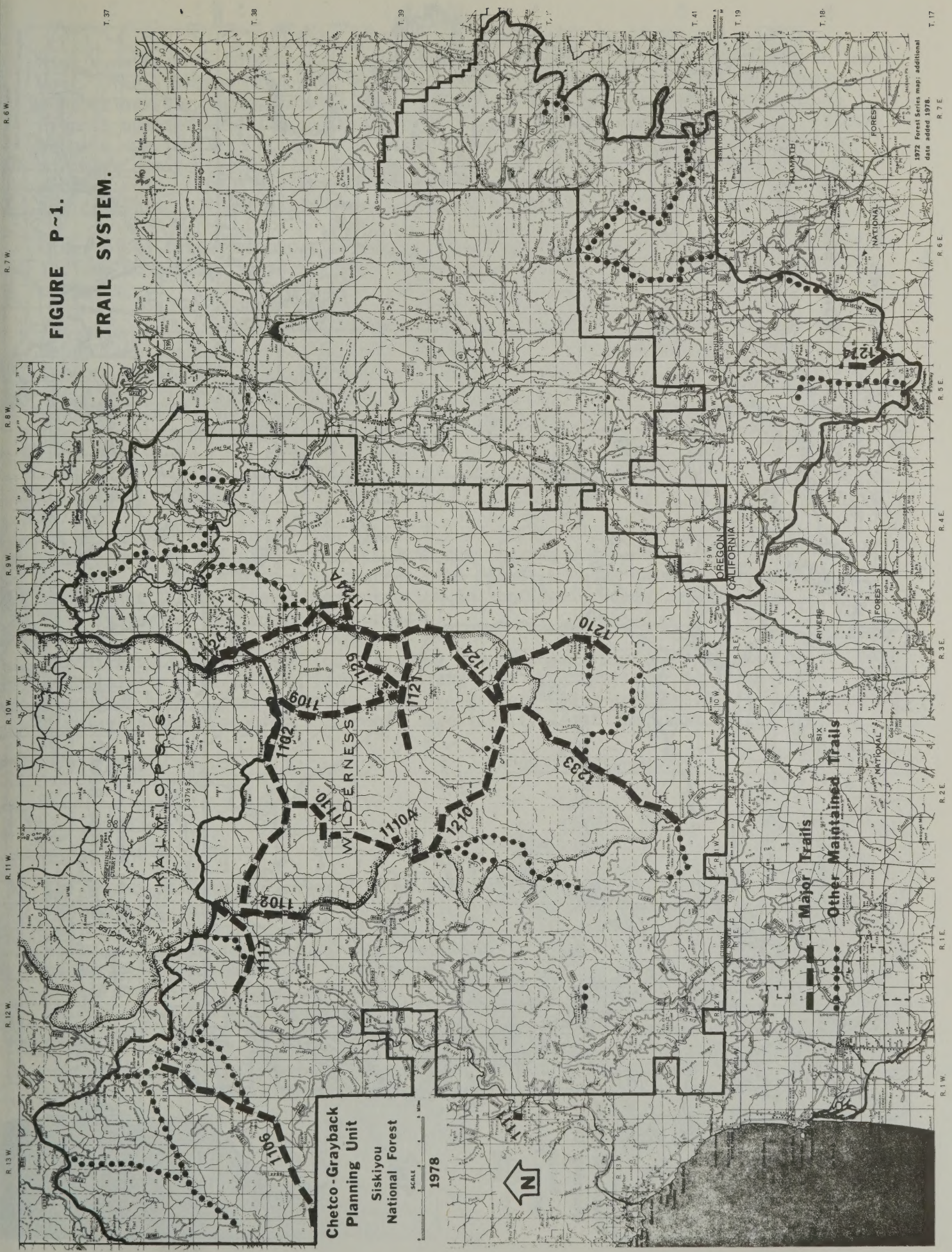
- 1/ Approximate mileage. Additional miles are added to the road system every year as new roads are built, abandoned roads are reconstructed, and "travel ways" are inventoried.
- 2/ There are many additional miles of "travel ways" that are not currently inventoried but which may permit wheeled travel, pending the existence of natural or man-made barriers.

Figure P-2 shows the existing road network in the Unit. Maintenance of all system roads is necessary to protect the investment and other resources from damage. It is also necessary to help insure the safety of users by removing or controlling safety hazards. It is necessary whether or not a road is currently being used by traffic.

Maintenance operations after construction may include such work as keeping drainage facilities operational, cutbank slough and debris removal, repairing and reshaping the road running surface, dust abatement, roadside shrubbery control, etc. The intensity of care will vary from road to road according to a Road Maintenance Plan. There are five levels of maintenance. The lowest level (maintenance of drainage facilities and runoff patterns) is normally applied to roads not opened for traffic. The highest level is applied to aggregate and asphalt paved high-use roads.



**FIGURE P-1.**  
**TRAIL SYSTEM.**



1972 Forest Series map; additional data added 1978.



R 13 W



High runoffs from intense rain storms constitute the major hazard to roads in the Unit. The Siskiyou National Forest has received, and will continue to receive, some relatively intense storms. The Forest's Flood Emergency Road Maintenance Plan is updated annually and can be readily implemented when any particular storm poses a substantial hazard. Its purposes are to implement emergency actions to minimize damage to roads, to the watershed, and the fisheries resources, and to protect road users. In general, temporary repairs begin when emergency actions are completed. These actions are dependent on immediately available funds.

Other miscellaneous categories of the transportation system in the Planning Unit include some established helispot sites, established primarily for fire control purposes.

Two major power transmission corridors exist in the Unit. One corridor is the Happy Camp line near Roads No. 4007 and 1916. This line connects Cave Junction, Oregon, with Happy Camp, California. The other corridor has two parallel lines, the O'Brien line and the Whiskey Creek line, near Road No. 4014. These two lines connect Cave Junction, Oregon, with Gasquet, California. Other localized power transmission and telephone lines extend a short distance into this Unit.

#### Q. Visual Management

In recent years, the American public has expressed a growing concern about the environment in which it lives. Scenic quality has been one of the factors involved. In response to this concern, the Forest Service developed a Visual Management System to provide protection to the scenic values. An explanation of this System is located in the Appendix.

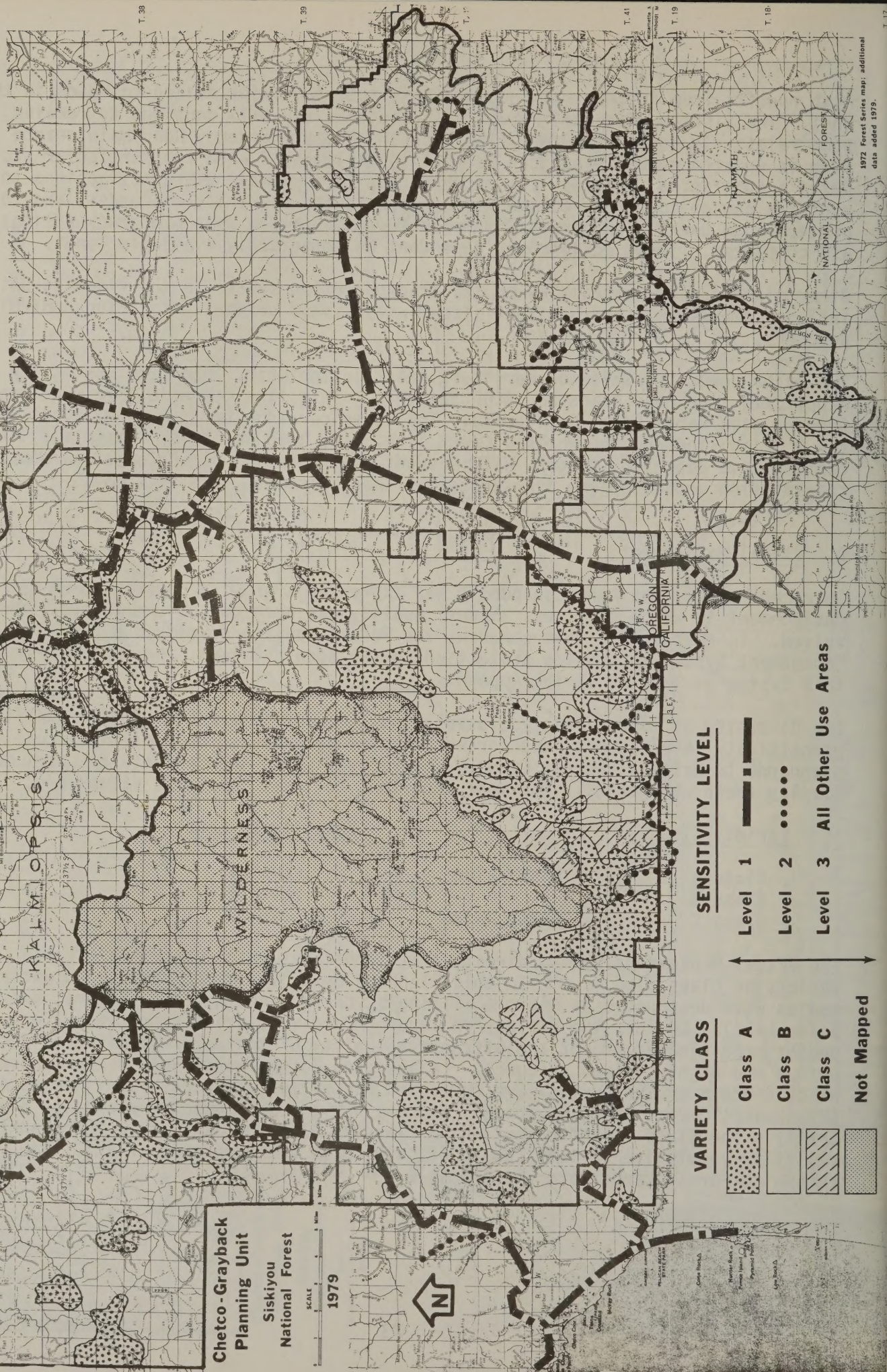
The diversity of land (variety classes) and the user interest in scenic qualities (sensitivity levels) were inventoried and used as a basis for applying visual standards to National Forest Lands. The Variety Class and Sensitivity Level maps display these categories. The most important to least important values are:

<u>Variety Class</u>		<u>Sensitivity Level</u>
Class A	Most Value	Level 1
Class B		Level 2
Class C	Least Value	Level 3

The Visual Management System directs that landscapes which contain a diverse variety be classified as A. In this Planning Unit, the major rivers and water bodies were designated as Class A (Illinois, Chetco, and Winchuck Rivers, and Bolan Lake). Besides the variety in landform and vegetation along the water bodies, the limited amount and attractive quality of the water itself provides a unique and highly valued resource. In addition to the water areas, the landscapes which contain unusual vegetative cover and rugged terrain were classified as A (Mt. Emily, Chetco Peak, Sourdough, and the sub-alpine character along the Siskiyou Crest). The Class C landscapes in the Planning Unit contain little topographic relief or vegetative variety (south of Kalmiopsis and Portuguese Flat). The remaining Forest Lands were classed as B.



**FIGURE Q ~1.**  
**VISUAL INVENTORY.**





T. 37



T. 17



Sensitivity levels were evaluated and assigned to each travel route, use area, and water body. Level 1 areas were sensitive because of the amount of use and percentage of recreation users. As could be expected, several of the travel routes correspond to the areas containing high variety (Illinois River Road, Chetco River Road and Winchuck River Road). Major travel routes and routes to major attractions were also designated as Level 1 (Caves Highway, roads and trails leading to the Kalmiopsis Wilderness, and Highways 199 and 101). The area visible from each travel route was mapped and recorded as background, middleground and foreground.

The visual standards (visual quality objectives) were determined by combining the variety classes and sensitivity levels. The degree of alteration from a natural landscape allowed by each objective depends on combined landscape character and the degree of concern for scenery. Five degrees of objectives are provided:

Preservation:	No alteration of the natural landscape.
Retention:	Least degree of alteration.
Partial Retention:	
Modification:	
Maximum Modification:	Greatest degree of alteration.

The visual objectives in this Planning Unit are displayed on the visual quality objectives map.

In the Planning Unit, "preservation" is limited to the Kalmiopsis Wilderness, Babyfoot Lake Unusual Interest Area, and Wheeler Creek Natural Area. "Retention" is closely associated to the major travel routes. Most of the "partial retention" areas lie in a middleground position and provide a backdrop to the sensitivity level 1 travel routes.

#### R. Wild and Scenic River

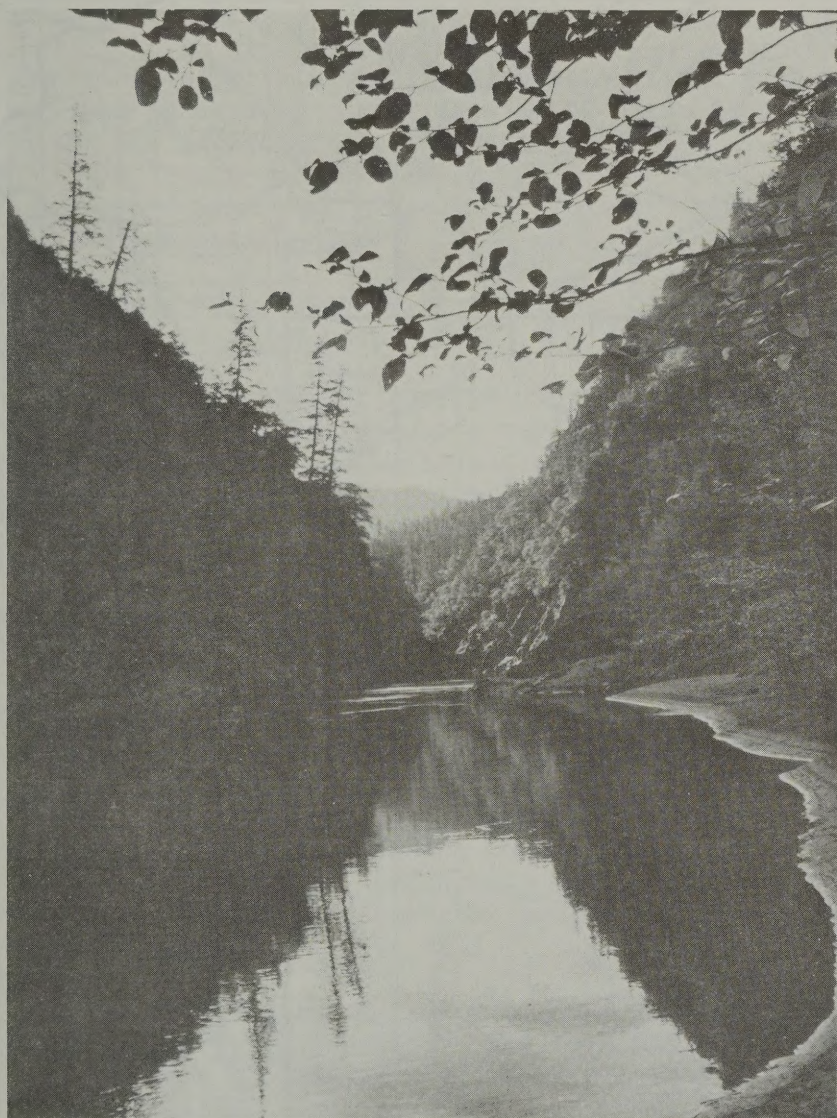
The Wild and Scenic Rivers Act became Public Law 90-542 when signed by the President on October 2, 1968. The purpose of the Act was to establish a national Wild and Scenic Rivers System, the component rivers of which would be preserved in their natural free-flowing condition. The Illinois River, which flows through the Planning Unit, was one of twenty-seven rivers in the United States designated to be studied for possible inclusion into the System.

Under National Wild and Scenic River designation, rivers and their immediate environments are to be protected for the enjoyment and benefit of present and future generations. Primary emphasis shall be given to protecting aesthetic, scenic, historic, archeologic, and scientific features. Three categories are recognized in the system. They are: Wild, Scenic, and Recreational. "Wild" river areas are most restrictive in regard to man's development and impact. "Recreational" river areas are the least restrictive.

The Illinois River was also included into Oregon's Scenic Waterway System in December 1970. The portion of the river from Briggs Creek to Deer Creek was classified as an "Accessible Natural River Area." The objectives and goals of the state system are similar to those of the national system.



The study of the Illinois River for inclusion into the national system was started in 1972 by the Forest Service. The study was conducted on the entire Illinois in Oregon including the East and West Forks. Although the river has not been classified to date, the preliminary report indicates the portion of the river from Briggs Creek to the national forest boundary at Eight Dollar Mountain should be classified as "Scenic". The remainder of the river upstream is not recommended for inclusion. The river downstream from Briggs Creek is also recommended for inclusion, however, that portion is outside the Planning Unit boundary. The President and Congress will make the final decision whether to classify the river as suggested in the field report. Figure R-1 shows the study area in this Planning Unit.



Illinois River

If the river is classified as suggested, management direction dictates maintaining recreational opportunities in a near natural setting. In general, a wide range of agricultural, water management, silvicultural and other practices could be compatible with the primary objectives of a scenic river area, providing such practices are carried on in such a way that there is no substantial adverse effect on the river and its immediate environment.

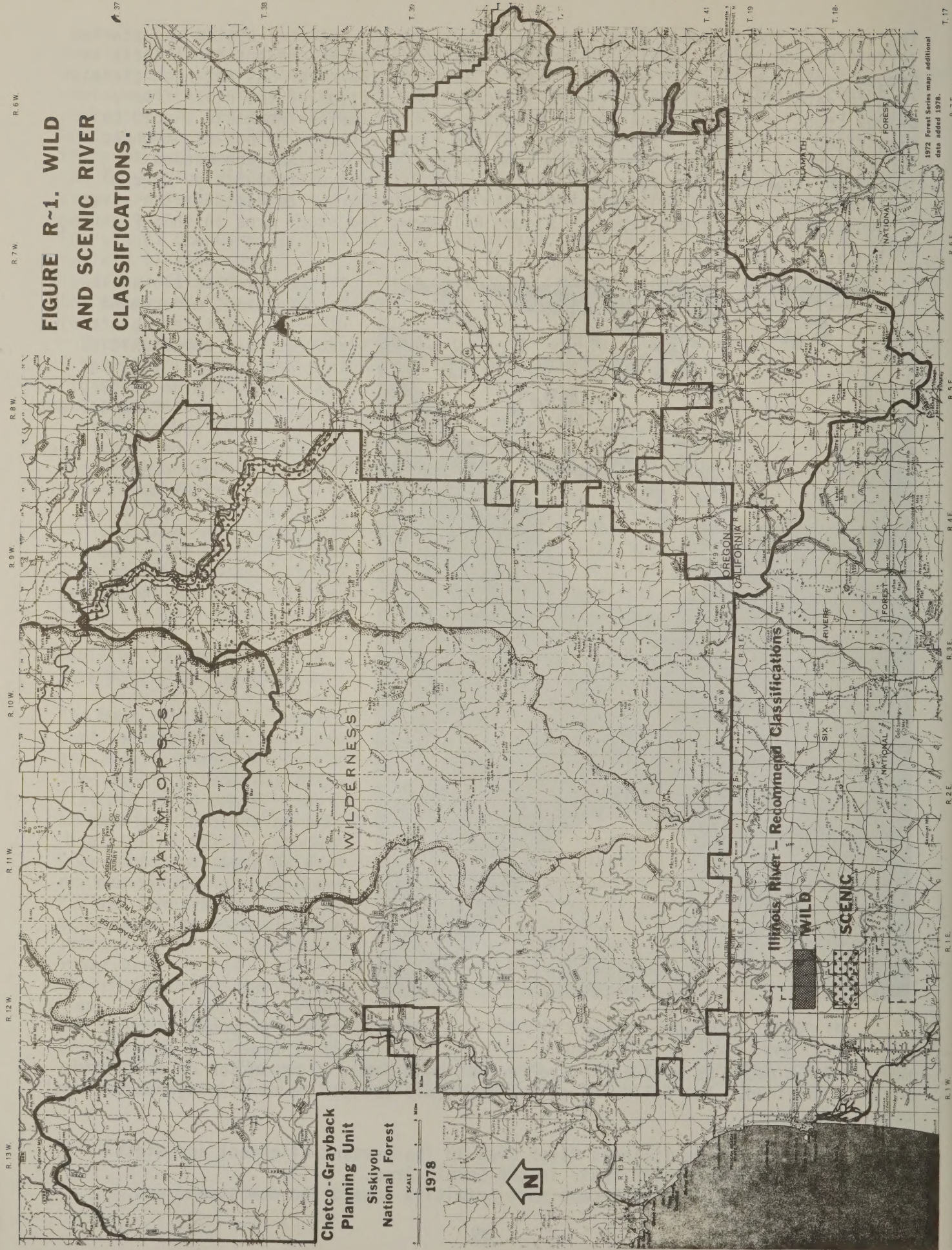
A minimal amount of developed recreational facilities are located on the Illinois River. A primitive road provides access to the river downstream from Sixmile Creek to Briggs Creek. Store Gulch and Sixmile are the only campgrounds. A few toilets and parking areas are also available for public use. In 1976 recreational use was estimated as shown in Table R-1.

The forest anticipates increased recreational use in the proposed "Scenic" river area. In order to

meet today's needs as well as future recreational needs an expansion of facilities will be required. The following guidelines would be used in developing recreational opportunities:

1. Maintain the Illinois River Road in its present alignment and width.
2. Construct a river trail in the Scenic Area.
3. Facilities should become more primitive toward the downstream end.





**FIGURE R-1. WILD AND SCENIC RIVER CLASSIFICATIONS.**



Table R-1. 1976 Recreational Use on the Illinois River in Planning Unit.

Type of Recreation	Visitor Days
Camping and Picnicking	1,800
Fishing	6,500
Floating	1,600
Swimming	3,000
Hiking	100
Hunting	300
Nature Study	700
Gathering Forest Products	1,000
TOTAL	15,000

Coordination with other types of activities, such as timber harvest, mining, etc., will be necessary. Priority will be given to protecting the values for which the river was included into the system.

### S. Wilderness

Wilderness is a resource by the terms of the Multiple Use-Sustained Yield Act of 1960. It says, in part:

"The Secretary of Agriculture is authorized and directed to develop and administer the renewable surface resources of the national forests for multiple use and sustained yield of the several products and services obtained therefrom. . . The establishment and maintenance of areas of wilderness are consistent with the purposed and provisions of this Act (Sec. 2).

"(q) 'Multiple use' means: The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people . . . with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output."

The Multiple Use-Sustained Yield Act preceded the Wilderness Act by four years. It made law the longstanding Forest Service practice of recognizing wilderness through Secretary of Agriculture Regulation. The Forest Service pioneered the wilderness concept by designating a tract of 433,000 acres in the Gila National Forest in New Mexico, in 1924.

Passage of the Wilderness Act of 1964 gave legislative status to 54 units of National Forest Wilderness. The Kalmiopsis Wilderness was one unit and added 76,900 acres to the 9.1 million-acre system. There were 34 National Forest Primitive Areas (Primitive Areas were precursors to Wilderness and also were designated through a Regulation of the Secretary of Agriculture) that the law required to be studied for Wilderness. The recommendations to Congress were made by 1974.

The Resource Planning Act of 1974 established a goal for the Wilderness System. In the past, wilderness selection was a study of individual areas for which an advocate has proclaimed its values. The Resources Planning Act based on the results of the "roadless area review" analyzed wilderness needs on a national



context in relation to other resource values and national needs and priorities for all goods, services, and amenities available from the National Forest System. The result was a target for classification of 25-30 million acres of wilderness by the year 2020. Thus, a National Wilderness Preservation System of 40 million plus acres is envisioned when other agencies are considered.

In 1978, Congress passed into law the Endangered American Wilderness Act (1978) PL 95-237 adding approximately 103,000 acres to the existing Kalmiopsis Wilderness (76,900 acres). It also added the 27,200 acre Wild Rogue Wilderness to the National Wilderness System. The Forest has 19 percent, or 207,100 acres, allocated as wilderness. On this Unit, Congress added 31,600 acres to the existing 57,075 acres of the Kalmiopsis Wilderness. This area is located south of the existing Kalmiopsis Wilderness in Curry and Josephine Counties.

The Kalmiopsis contains some of the most rugged and inaccessible country in the Siskiyou National Forest. It is characterized by deep, rough canyons, sharp ridges, and sparse vegetation. Serpentinite and various peridotites are prevalent in the area. It has a high potential for mineral deposits, particularly nickel and chromite. Several mining roads do exist within the wilderness country.



Vulcan Lake in the Kalmiopsis Wilderness

The flora is noteworthy, not only for the great number of species, but also for the abundance of rare and unusual plants. Known to grow within the Kalmiopsis Wilderness are 12 species of coniferous trees, 9 species of hardwood trees, over 31 species of shrubs, and many species of herbaceous plants. *Kalmiopsis leachiana*, which resembles a miniature rhododendron, is abundant in portions of this wilderness. It is believed to be a relic of the tertiary age. The plant was discovered in 1930 by Mrs. John R. Leach of Portland, Oregon.

Because of the wilderness' harshness and its distance from large populations, it is one of the most lightly used wilderness areas in the Pacific Northwest. Recreation use grew from 400 visitor days in 1966 to 9,200 visitor days in 1977. This represents less than 1.2 percent

of the wilderness days recorded in 1977 within the National Forest of Oregon and Washington. The acreage within the Kalmiopsis Wilderness, by contrast, represents 4.0 percent of the wilderness acreage for the same region.

The RARE II study recommended that part (4,950 acres) of Roadless Area 6701 be added to the Wilderness System and that Roadless Area 6707 be placed in a further planning category.



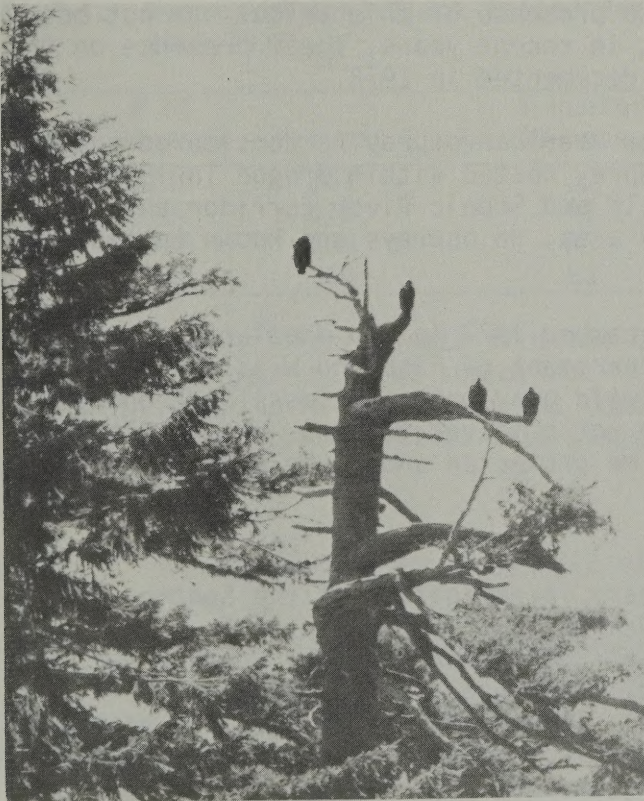
## T. Wildlife

A minimum of 250 species of wildlife utilize a variety of habitats within this Unit. Most species are residents, but some birds are seasonal visitors or migrants.

Sixteen species of amphibians (10 salamanders, 5 frogs, and 1 toad) inhabit the Planning Unit. The salamander species range from the large and formidable-looking Pacific Giant down to the diminutive Olympic. A common and easily observed salamander of the Planning Unit's rivers, streams, and ponds is the rough-skinned newt. Common frog species are the tailed, Pacific tree, and Northern red-legged.

The Planning Unit contains 17 reptile species (11 snakes, 5 lizards, and 1 turtle). Lizard species include the alligators, sagebrush, fence, and western skink. Snakes found within the Unit range from such large species as the gopher and racer down to the small and docile rubber boa and the colorful ringneck. Four species of garter snakes are residents of the Planning Unit, as is the venomous Pacific rattlesnake.

Approximately 64 species of mammals inhabit the Planning Unit. Resident game mammals include Roosevelt elk, blacktail deer, black bear, and western gray squirrel. Furbearers (unregulated, regulated, and protected) include mountain lion, bobcat, gray fox, coyote, river otter, mink, beaver, raccoon, ringtail cat, skunks, marten, and probably fisher. So-called small mammals account for most of the mammal species - the unit harbors, among others, a variety of shrews, moles, bats, lagomorphs, ground squirrels, tree squirrels, pocket gophers, mice, voles, and woodrats.



Wildlife Tree

Over 150 species of birds are permanent residents, summer residents, winter visitors, or are found migrating through the Planning Unit. Game birds include mountain and valley quail, blue and ruffed grouse, mourning dove, and band-tailed pigeon. Birds of prey found on the Unit include the red-tailed hawk, goshawk, Cooper's hawk, golden and bald eagles, sparrow hawk, turkey vulture, screech owl, great horned owl, pygmy owl and northern spotted owl.

Birds associated with the Unit's rivers and streams include the common merganser, wood duck, spotted sandpiper, great blue heron, belted kingfisher, and dipper.

Woodpeckers such as the pileated, hairy, downy, flicker and yellow-bellied sapsucker are found in suitable habitats throughout the Unit. The largest group of species present are the passerines, or songbirds. This group includes the flycatchers, swallows, jays, chickadees, nuthatches, wrens, thrushes, kinglets, vireos, wood warblers, blackbirds, grosbeaks, finches, and sparrows.



One mammal and three bird species which are or may be found in the Unit are classified either threatened or endangered by the Federal Government and/or the State of Oregon.

The Peregrine falcon is on both the Federal and the State endangered species lists. Although a single peregrine falcon was sighted on the Planning Unit in the fall of 1968, in recent years no nest sites of this bird have been found on the Forest, nor have any sightings of adults been made during the breeding season; however, at least one peregrine nest was recently located on a near-by National Forest.

Bald eagles are occasionally seen within the Unit. In times past these birds may have nested in the vicinity of the Chetco River. The bald eagle is classified by the Federal Government as endangered in California and Threatened in Oregon. California and Oregon list the bald eagle as endangered and threatened respectively.

The northern spotted owl, a species listed as threatened by the State of Oregon, nests within the Planning Unit; both individuals and pairs have been observed at 17 different locations. Northern spotted owls are almost always found associated with multi-layered old growth forest. Large overstory trees are used for nesting and winter roosts; small understory trees are used for summer roosts. In a 1973-74 study, the average height and DBH of 18 nest trees in Oregon was found to be 101 feet and 54 inches respectively. 1/ Spotted owls also appear to require a territory of up to 300 acres or more. 2/ Old growth forests are primarily confined to public lands - principally within the National Forests.

The wolverine, on the Oregon threatened list (and considered "Rare" in California), may be present in the Unit. Although the presence of this animal has not been verified on the Siskiyou National Forest in recent years, their presence on the adjacent Six Rivers National Forest was documented in 1973.

On a nation-wide basis, the status of the American osprey is considered undetermined. 3/ At least  $308 \pm 23$  pairs of osprey nested within Oregon in 1976. 4/ Although ospreys nest along the Rogue Wild and Scenic River corridor and at several locations in the Illinois Valley area, no ospreys are known to nest within the Chetco-Grayback Planning Unit.

A gray wolf was trapped and killed in December 1977 in the Wheeler Creek drainage (Chetco Ranger District). The Oregon Department of Fish and Wildlife feels the wolf was released by someone. Although wild gray wolves (classified endangered in Oregon by the federal government) are not believed to occur on the Planning Unit, any wolves actually present would be protected under the Endangered Species Act.

1/ Forsman, E. 1976. A Preliminary Investigation of the Spotted Owl in Oregon. Ms Thesis. Oregon State University. 127 pp.

2/ Gould, G.I., Jr. 1975. Habitat Requirements of the Spotted Owl in California. California-Nevada Wildlife Transactions 1975. pp. 102-117.

3/ U.S. Fish and Wildlife Service. 1973. Threatened Wildlife of the United States. Resource Publication 114. Superintendent of Documents, U.S. Government Printing Office. Washington, D.C. p. 203.

4/ Henny, C.J., Collins, J.A., and Deibert, W.J. 1978. Osprey Distribution, Abundance, and Status in Western North America: II. The Oregon Population. The Murrelet 59: pp. 14-25.



Wildlife interact with and are often an integral part of other forest land uses. The uses most closely associated with wildlife include both timber management and many forms of recreation.

Wildlife are a source of recreation for many visitors to the Forest. Hunters spend thousands of man-days each year pursuing game animals inhabiting the Unit. Black-tailed deer attract the greatest number of hunters but Roosevelt elk, quail, grouse, and band-tailed pigeons are harvested as well (Tables T-1, T-2, T-3). Although the annual black-tailed deer harvest has remained relatively constant during the last 15 years, hunting pressure has more than doubled (Table T-1).

Before the white man arrived, Roosevelt elk inhabited most portions of the Planning Unit. Following settlement of the area herds were eventually eliminated by extensive fires, poaching, and commercial hunting for hides and meat. In recent years sizeable elk herds have been re-established on the Unit through elk transplants, more effective enforcement of game laws, and enhancement of existing elk habitat by timber management activities.

From 1967 to 1975, 91 elk were transplanted to five locations within the Curry County portion of the Unit. The area south of the Rogue River in Curry County was first opened to hunting in 1974. About 33 bull elk were harvested on the Chetco Ranger District that year.

Elk are not known to be present on that portion of the Chetco-Grayback Planning Unit east of U.S. Highway 199. Because of possible wintertime conflicts between elk and private landowners, there are no plans to transplant elk to this area.

Table T-1. Average Annual Black-tailed Deer Harvest for the Planning Unit, 1960-1976. 1/

Time Period	# of Hunters	Harvest <u>2/</u> <u>3/</u>	% Hunter Success	Hunter Days	Days/Hunter	Days/Kill	Kill/Sq. Mile
1969-76	1230	361	30	9013	7.4	25.3	0.86
1966-72	902	371	41	6184	6.8	16.7	0.85
1963-69	786	386	49	5154	6.6	13.4	0.88
1960-66	696	369	53	4312	6.2	11.7	0.84

1/ Based on inferred data from the Oregon Department of Fish and Wildlife annual deer harvest summaries.

2/ Includes unit permit harvest (antlerless).

3/ The kill is assumed to take place only on the roaded portion of the Planning Unit.

Table T-2. Average Annual Roosevelt Elk Harvest for the Planning Unit, 1974-1976. 1/

# of Hunters	Harvest <u>2/</u>	% Hunter Success	Hunter Days	Days/Hunter	Days/Kill
201	23	11	817	4.1	36

1/ Based on inferred data from Oregon Department of Fish and Wildlife annual elk harvest summaries.

2/ Includes only the inferred kill on the roaded portion of the Chetco-Grayback Planning Unit.



Table T-3. Average Annual Game Bird Harvest for the Planning Unit, 1973-74. 1/ 2/

Mountain & Valley Quail		Blue & Ruffed Grouse		Band-tailed Pigeon	
Hunters	Harvest	Hunters	Harvest	Hunters	Harvest
25	126	41	80	120	744

- 1/ Based on inferred data from Oregon Department of Fish and Wildlife annual game bird harvest summaries.
- 2/ The kill is assumed to take place only on the roaded portion of the Planning Unit.

A number of black bear are harvested each year. In addition, a few trappers utilize the fur resources of the Unit, with bobcat, coyote, and gray fox being the principal species taken.

Non-consumptive uses of wildlife resources are also important. Although no figures for non-consumptive use are available for the Planning Unit, the 1970 National Survey of Fishing and Hunting showed that for every day a hunter spent in the field 4 other individuals were bird-watching or photographing and/or observing wildlife in general (country-wide basis).

Wildlife-related recreation is centered in the roaded areas. Virtually all hunting takes place within a few miles of some road. Development activities, including timber management, generally improve game habitat and increase populations of game animals such as Roosevelt elk and mountain quail, this results in greater opportunities for humans to both hunt and observe animals. However, development activities also limit the opportunities for human contact with those non-game animals which frequent mature and/or unmanaged forest land (including such birds as the goshawk, saw-whet owl, Hammond's flycatcher, hermit thrush, and red cross-bill). "Contacts" made with these forest animals are important to many people who use the wildlife resources of the Planning Unit.

The key to maintaining self-sustaining populations of all wildlife species living within the Planning Unit lies in maintaining a diversity of habitat. However, a few isolated locations for specific habitat types should not be depended on to provide adequate representation. Wildlife habitat requirements are too complex and the potential loss of habitat by fire or other natural catastrophies is too great to adopt this strategy. Similarly, maintenance of a fully regulated forest with stand ages evenly distributed between ages 1 and 100 would be inadequate for the Unit as a whole with respect to providing habitat for old-growth-dependent wildlife species.





Wild Rhododendron



### III. EVALUATION CRITERIA

The overall management goal for this Planning Unit is "to maximize the net benefits over time, which society derives from the forest resources within (and related to) the Planning Unit (benefits being measured in terms of both quantity and quality)." The weight given to each of the component variables in this function will reflect the issues of the general public, as expressed in legislative mandates, administrative directives, direct expressions, and other methods.

There are numerous constraints (or sub-goals) to work within. For example, management must be compatible with relevant laws and regulations, with the national long-range RPA program, and with existing budget levels. Several of the more important laws are: The Organic Administration Act of 1897; the Multiple Use-Sustained Yield Act of 1960; the National Environmental Policy Act of 1969; the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA); the National Forest Management Act of 1976; Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands; National Historic Preservation Act of 1966; Executive Order 11593 1971, Preservation and Enhancement of the Cultural Environment; and American Indian Religious Freedom Act, PL 95-341. (Refer to Forest Service Manual 1950 for additional important Acts.) The RPA program targets referred to above are shown for both the national and regional levels in the Appendix.

Statewide Planning Goals developed by the State of Oregon Land Conservation and Development Commission are shown in the Appendix. A summary evaluation of the degree of support each alternative provides to each goal appears in the discussion and comparison of alternatives.

Future conditions on the Unit must be monitored for comparison with the present status quo conditions to assure compliance with the following, more specific constraints. The following criteria has been developed from laws, goals, management concerns, and public issues for selecting the preferred alternative. Each alternative will be compared against this criteria:

1. Protect and maintain the existing soil resource.
2. Protect and improve water quality for the fisheries resource and for other uses.
3. Maintain relatively high levels of timber outputs and mineral availability on the Unit.
4. Protect visual and other amenity qualities of the Unit as a whole from substantial long-term degradation.
5. Protect and increase the recreation potential for all types of outdoor recreation.
6. Protect and enhance fish and wildlife habitat.
7. Protect the qualities of the Illinois River until the study recommendation to include it in the National Wild and Scenic Rivers Systems is examined by Congress.



8. Adequately protect endangered, threatened, and rare flora and faunal species within the Unit.

9. Identify, evaluate, and, where appropriate, protect historical and archeological sites within the Unit.

10. Keep fire hazard at an acceptable level, commensurate with the risk.

11. Existing classified areas in the Unit (a portion of the Kalmiopsis Wilderness, the Wheeler Creek Natural Area, Babyfoot Lake Unusual Interest Area-Botanical, and the Proposed Hoover Gulch and Lemingsworth Gulch Natural Area) will remain unchanged.

12. Meet air quality standards.



#### IV. ALTERNATIVES CONSIDERED

##### Development of Alternatives

The development of the alternatives began with the evaluation of the input from the public meetings and the responses from the alternatives brochure. Information, ideas, and concerns of the public were meshed together with legislative mandates and administrative directives. Other general criteria used in the analysis were existing resources, land capabilities, social and economic values, and environmental effects. Although there are an unlimited number of possibilities, five alternatives were selected and evaluated because they represent a wide range of land management options.

##### a. Planning Assumptions

1. Most areas within the Planning Unit can support a number of different uses, singularly or in various combinations.
2. Resources within the Unit are scarce, relative to both the variety and the magnitude of demands for public benefits.
3. Benefits include anything that is for the good of a person(s) or thing(s). They may be monetary or non-monetary, tangible or non-tangible.
4. Greater public benefits from the Unit can be attained through effective land allocation, improved utilization, and more intensive use of the land.
5. All uses (to attain different benefits) are incompatible to some degree. The incompatibilities tend to increase as the intensities of use increase in the same area at the same time.
6. Conflicts between assumptions #4 and #5 can be moderated by allocation of land according to land capabilities for the various uses and by management constraints on some or all uses.
7. It is virtually impossible to maximize two or more different benefits in the same space at the same time.
8. A multiple-use management strategy for large planning units like the Chetco-Grayback Planning Unit, usually maximizes total net public benefits. This means that management does not maximize the benefits for any single use over the entire Unit. (This does not, however, suggest that all or most uses must necessarily occur on the same acre. Indeed, in practice, multiple use strongly tends to be a patchwork of dominant uses over a Unit. Secondary uses usually occur as consistent with the particular dominant use in a given segment of the larger unit.)
9. The planning period extends into the distant future (i.e., 100 years); however, the rapid technologic and socio-economic changes characteristic of recent decades cause long-range plans (such as this plan) to become increasingly obsolete with age. At a minimum, plans of this nature must be thoroughly re-evaluated within five to ten years.



Resource-related assumptions include the following:

1. There will be an increasing need to maintain a high quality environment.
2. The economies of the surrounding communities will, within the foreseeable future, continue to be heavily dependent upon the wood industry and on the National Forest for raw material; however, it is likely that these local economies will continue to diversify with increasing emphasis on the recreation/tourism industry and on various "footloose" manufacturing industries.
3. The national demand for wood products will increase.
4. There will be an increasing demand for all types of outdoor recreation.
5. The five major rivers, their tributaries, and other streams important to the fisheries resource will continue to provide good quality habitat for anadromous fish.
6. The State of Oregon's stringent water quality standards for the Rogue River Basin will apply to all major rivers and streams within the Planning Unit.
7. Population levels of most unique, threatened, and endangered floral and faunal species will continue to decline as development progresses. Positive steps can be taken to protect these species and their habitats. (NOTE: Approximately 19 percent of the Unit currently is managed under classifications that will retain, or largely retain, the existing ecosystems.)
8. The scenic resource will continue to increase in importance and significance in Forest Service resource management.
9. Forest and regional trends indicate the desirability of maintaining, upgrading, or creating trails with a significant recreation potential.
10. The national needs for mineral resources will increase, and domestic supplies of certain key minerals will become increasingly valuable.
11. The risk of wildfire ignition will increase with improved access, as will accessibility for suppressive action.

b. Description of Land Management Allocations

Land management areas were developed to emphasize different land management and goals. Each allocation contains a number of compatible activities or management practices that could occur on a single piece of land. The ten land management areas used in the formulation of, and in the analysis of, the alternatives in this document are described below. Each describes the general goals and policies which would direct land management under that designation. A number of goals and policies apply uniformly to all land management allocations. They are the following:

1. All relevant laws and regulations apply.
2. Forest Soils Management, Streamside Management Unit, Visual Resource Management, and snag policies apply, as do applicable water quality standards.



3. Known threatened or endangered floral and faunal species will be adequately protected.
4. Existing legal rights are retained for the duration of the permit.
5. Mineral, power, flood, water, and other entry rights are retained except where otherwise stated.
6. The Forest Off-Road Vehicle (ORV) Plan applies except where otherwise modified.
7. Lands acquired through exchange or purchase of fee title will be allocated to the appropriate management areas under the plan finally adopted.

Each of the five alternatives reflects a different blend of land management. The blends differ both in the total number of acres allocated to each land management area and in the location of the allocation. Hence, each alternative reflects a different pattern of land management.

#### Management Area 1

Management Area 1 is a coordinated resource management area and will be managed to: 1) obtain full timber yield consistent with land capabilities and applicable management constraints; 2) provide a high level of good quality big game habitat; 3) protect soil, watershed, visual, wildlife, fisheries, and provide and protect recreational resources; 4) protect and maintain small areas containing exceptional aesthetic, scenic, historic, archeologic, geologic, botanic, zoologic, or scientific features.

Programmed timber harvest will be planned for suitable acres within these areas. Silvicultural techniques will be utilized to attain maximum timber yield consistent with the land capabilities and applicable management constraints in each location. These techniques will include partial cutting and clearcutting for regeneration purposes. Methods of harvesting the timber will vary depending on land characteristics and applicable management constraints, as will slash disposal methods. Planting will be the primary method of reforestation. Crop species will be released from brush competition where needed. Precommercial and commercial thinnings will be applied, as appropriate, to maintain timber yield objectives. Roads will be developed to serve the requirements of the logging system and to protect the physical environment of the area. Habitat diversity will be maintained for wildlife, with species requiring earlier stages of plant succession (including big game species) favored over the long term. Existing and planned developed and dispersed recreation facilities will be maintained to meet the recreation use demand for the area. These facilities include campgrounds, picnic grounds, and trails. New recreational facilities generally will not be planned but may be developed where justified. These areas generally will be open to off-road vehicles. Small areas having exceptional aesthetic, scenic, historic, archeologic, geologic, botanic, zoologic, or scientific features may be designated for special management. Land acquisitions and/or exchanges will occur as appropriate. Special use permits for powerline rights-of-way and other uses may be issued as appropriate. Watershed monitoring sites will be initiated as appropriate. Modification of the physical environment must meet or exceed the applicable visual quality objective (depending on location). The Siskiyou Soils Management Policy, the Siskiyou Streamside Management Policy, applicable water quality standards, and other relevant management constraints apply to this area. (See Appendix.)



## Management Area 2

Management Area 2 is a dispersed recreation area and will be managed to: 1) protect and essentially retain the existing natural qualities, including the visual qualities; 2) protect or preserve small areas within the allocation which represent exceptional aesthetic, scenic, historic, archeologic, geologic, botanic, zoologic, or scientific features; 3) protect soil, watershed, aesthetic, wildlife, fisheries, timber, mineral, and recreation resources; 4) develop and utilize recreation, timber, and mineral resource potentials as consistent with the goals above. The existing environment will be essentially retained in order to protect the existing natural values. Ecosystems will be maintained. Alterations in vegetation types and patterns will be relatively small in scale and dispersed in time and space. Except where otherwise specified, modification of the physical environment must meet or exceed the visual quality objective of retention. Habitat, floral, and faunal diversity will be maintained. Known specimens of rare, threatened, or endangered floral or faunal species will be protected. Small areas within the allocation, representing exceptional aesthetic, scenic, historic, archeologic, geologic, botanic, zoologic, or scientific features, may be designated for special management designed to protect or preserve these features. Dispersed recreation opportunities will generally be maintained or improved. Existing recreation trails, in general, will be maintained. New recreational facilities may be developed as consistent with recreation experience levels 1 or 2, and with the goals for the area. Off-road vehicles generally will be restricted to existing roads in the area. Some generally low-impact roads or tracks may exist in these areas at present. A limited amount of additional road construction may be planned if consistent with the primary goals and with land characteristics. Any new construction must be minimum-impact in substance. Programmed timber harvest will be planned in accessible locations where consistent with the primary goals of the area and with land capabilities. Silvicultural techniques consistent with the above will be utilized (up to 30 percent of potential estimated to be possible). Salvage harvests may be permitted under catastrophic conditions, as consistent with the objectives for the area. Mineral, power, flood control, and water entries will be consistent with the goals of the area. These entries will be withdrawn, if necessary, to meet the goals. Watershed monitoring sites will be initiated as appropriate. Land acquisitions and/or exchanges may occur where appropriate. Applicable water quality standards and other relevant management constraints apply to these areas.

The Windy Valley area will be managed to: 1) protect and retain the existing natural qualities; 2) protect or preserve small areas within the allocation which have exceptional aesthetic, scenic, historic, archeologic, geologic, botanic, zoologic, or scientific features; 3) provide opportunities for recreational experience levels 1 and 2; and 4) protect soil, watershed, aesthetic, wildlife, fisheries, timber, and recreational resources.

The existing environment will be fully retained to protect the natural values. Modification of the physical environment must meet or exceed the visual quality objective of retention. Small areas within the classification having exceptional aesthetic, scenic, historic, archeologic, geologic, botanic, zoologic, or scientific features will be managed to protect or preserve these features. Dispersed recreational opportunities consistent with recreational experience levels 1 or 2 and with the first two goals, will be maintained or developed. Portions of stream channels may be modified to improve fish habitat where practical and when consistent with the first two goals. Programmed timber harvest will not be planned; however, timber removal may be permitted under catastrophic conditions. Road construction



will not be planned in these areas. Off-road vehicles will not be permitted. Power, flood, and water entries will be withdrawn. Mineral entry will be withdrawn, if necessary, to meet the primary goals. Consolidation of National Forest Lands within these allocations will be sought through land acquisitions, as appropriate. Existing wildlife habitat will be retained, and known specimens of rare, threatened, or endangered floral or faunal species will be protected.

#### Management Area 4

Management Area 4 is a scenic river area and will be managed to: 1) maintain or enhance the condition of the high quality scenery and the largely undeveloped character of its shoreline; 2) maintain or improve the quality of the water which enters the river; 3) maintain or improve the fish and wildlife habitat; 4) provide opportunities for river-oriented recreation which is consistent with the area's largely undeveloped nature and dependent on the river's free-flowing condition; and 5) utilize other resources and permit other activities which maintain or enhance the quality of the wildlife habitat, river fishery, scenic attractions, and recreation values.

Primary emphasis will be given to protecting the aesthetic, scenic, historic, archeologic, and scientific features of the areas. Recreational developments may include trails, camping facilities, and other developments consistent with recreation experience levels 2 or 3 (minimal to intermediate development) and with protection of the site. Programmed timber harvest will be planned only where it will meet the primary goals of the area. Except as needed for temporary access for fire control purposes or for removal of trees killed by fire, windthrow, insects, or disease, as determined necessary, there will be no construction of new roads. These areas will be withdrawn from power, flood control, or water entries. Mineral entry will be withdrawn, if necessary, to be consistent with the primary goals of the area. Land acquisitions and/or exchanges will occur as appropriate. Rare, threatened, or endangered floral or faunal species will be protected. Off-road vehicles will not be permitted. Management activities that modify the physical environment must meet or exceed a visual quality objective of retention.

In this Planning Unit, this category includes all lands and water along the Illinois River which has a proposed designation of "Scenic" in the river study.

#### Management Area 5

Management Area 5 is the recommended wild river area and will be managed to: 1) preserve the essentially primitive character and outstanding scenic attractions; 2) maintain or improve the quality of the water which enters the river; 3) maintain or improve the fish and wildlife habitat; and 4) provide opportunities for river-oriented recreation which is dependent on the free-flowing condition of the river and consistent with the primitive character of the surroundings.

Primary emphasis will be given to the protection and retention of aesthetic, scenic, historic, archeologic, and scientific features of the areas. Recreational developments may include trails and camping facilities consistent with recreation experience levels 1 and 2 (primitive to minimal) and with protection of the site. Residences established in the area may continue, but additional residences will not be permitted. Programmed timber harvest will not be planned, however, timber removal may be permitted under catastrophic conditions. Roads will not be permitted in these areas. These areas have been or will be withdrawn from mineral, power, flood control, or water entries. Land acquisitions and/or exchanges will



occur as appropriate. Rare, threatened, or endangered floral and faunal species will be protected. Off-road vehicles will not be permitted. Management activities that modify the physical environment must meet or exceed a visual quality objective of retention.

#### Management Area 6

Management Area 6 is a fisheries/watershed area and will be managed to: 1) maintain or improve water quality and the watershed characteristics of the area; 2) maintain old-growth forest characteristics for dependent wildlife species; 3) protect or enhance spawning and rearing habitat for anadromous fish; and 4) develop and utilize timber, recreation, and mineral potentials as consistent with the above goals.

These areas are supplemental to the Siskiyou Streamside Management Unit Policy and other policies designed to protect or enhance water quality and fisheries habitat. Areas will average 1/8 mile horizontal distance from each streambank, but may vary in width in a given area, depending on the on-site characteristics. Areas generally will be managed in a near-natural condition. Management activities (i.e., stabilization of slides, etc.) designed to improve water quality or fisheries habitat may be undertaken where appropriate. Recreational developments generally will not be planned; however, trails and camping facilities consistent with recreational experience levels 1 and 2 (primitive to minimal) and protection of the site may be permitted if compatible with the primary goals of the area. Programmed timber harvest will be planned only where the primary goals of the area can be met. Off-road vehicles will not be permitted. These areas will be withdrawn from power, flood control, and water entries. Mineral entry will be withdrawn only if necessary to meet the area goals. Rare, threatened, or endangered floral and faunal species will be protected. Management activities that modify the physical environment must meet or exceed the visual quality objective of either retention or partial retention (depending on location).

#### Management Area 7

Management Area 7 is a recreations/fisheries area and will be managed to: 1) provide opportunities for a wide range of recreational activities which are oriented to the river and enhanced by its free-flowing condition; 2) maintain or improve the quality of water which enters the river; 3) improve fish and wildlife habitat; 4) maintain or enhance the quality of scenery; and 5) utilize other resources and permit other activities to the extent that they do not significantly lower the quality of wildlife habitat, river fishery, scenic attractions, or recreation value.

These areas will average one-eighth mile horizontal distance from each streambank, but may vary in width in a given area depending on the on-site characteristics.

Recreational facilities will be developed to provide a wide range of river-oriented recreational opportunities. Developments may include trails, camping facilities, boating facilities, picnicking facilities, and roads. These facilities will be consistent with recreational experience levels 2 through 5 (minimal to highly developed) and with protection of the site. Some additional expansion of structures will be permitted. Programmed timber harvest will be planned. Roads may be constructed as necessary to meet the goals of the area. These areas will be withdrawn from power or flood entries. Mineral entry will be withdrawn, if necessary, to be consistent with the primary goals of the area. Land acquisitions



and/or exchanges will occur as appropriate. Rare, threatened, or endangered floral or faunal species will be protected. Off-road vehicles will generally be permitted. Management activities that modify the physical environment must meet or exceed either retention or partial retention visual quality objectives.

#### Management Area 9

Management Area 9 is a research natural area and will be managed to: 1) preserve examples of all significant natural ecosystems; 2) provide educational and research areas for ecological and environmental studies; and 3) preserve gene pools for typical and rare and endangered plants and animals.

Primary emphasis will be given to the preservation of natural features of interest for educational and scientific values. Educational or research projects will generally be of nondestructive character; however, manipulation which simulates natural processes will be allowed to maintain desired communities or organisms. Neither roads nor timber harvest will be permitted. Off-road vehicles will not be permitted. Recreation will be allowed, provided the activity does not significantly alter the area's natural features. These areas will be withdrawn from mineral, power, flood control, or water entries. Rare, threatened, or endangered floral and faunal species will be protected. The visual quality objective for these areas is preservation. In this Planning Unit, this category refers to the Wheeler Creek Natural Area, the proposed Hoover Gulch Natural Area, and the proposed Lemingsworth Gulch Natural Area.

#### Management Area 10

Management Area 10 is a botanical area and will be managed to preserve the essentially primitive character and outstanding botanical attractions.

Primary emphasis will be given to preserving the botanical and other features of the areas. Existing trails will be permitted, but additional recreational development will not be permitted. Neither roads nor timber harvest will be permitted. Off-road vehicles will not be permitted, and these areas will be withdrawn from mineral, power, flood, or water entries. Rare, threatened, or endangered floral and faunal species will be protected. The visual quality objective for these areas is preservation.

In this Planning Unit, this category refers to the Babyfoot Lake Unusual Interest Area - Botanical.

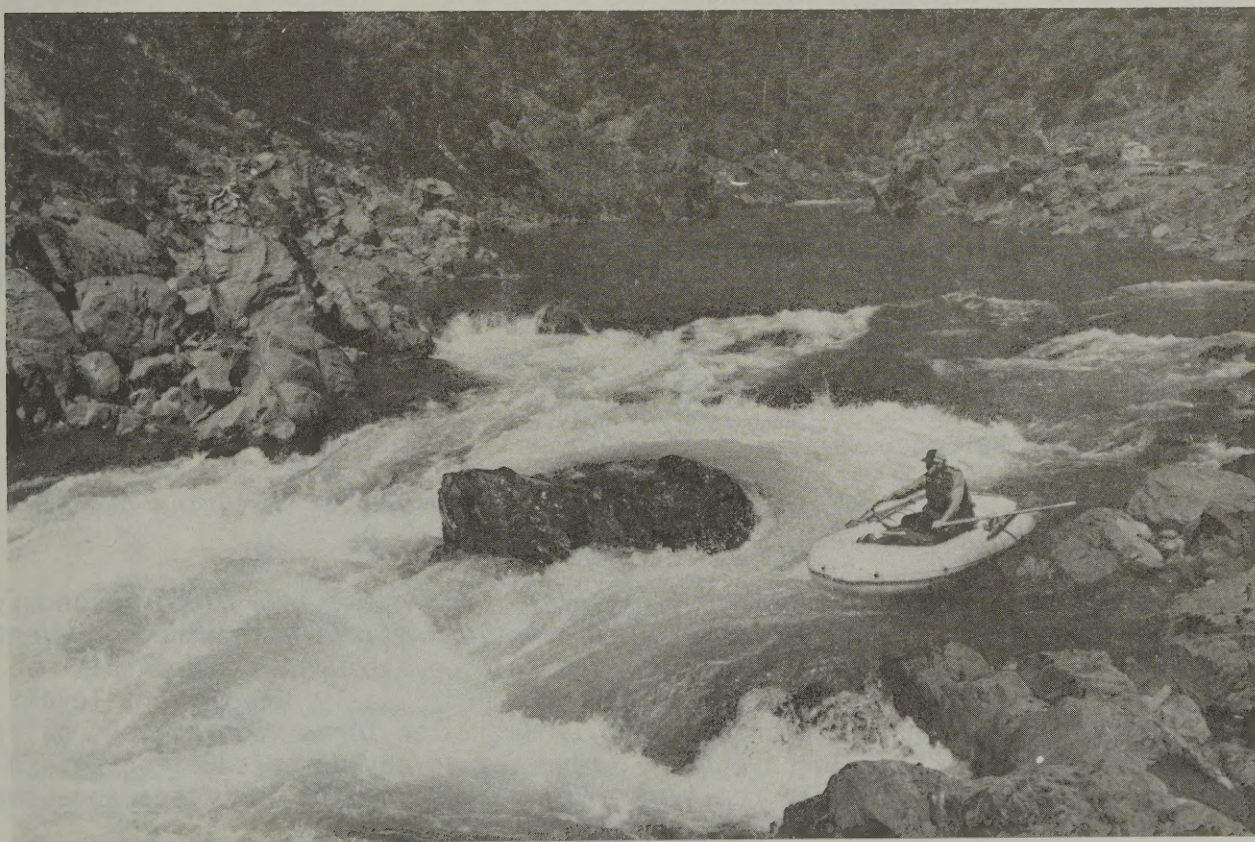
#### Management Area 11

Management Area 11 is a wilderness area and will be administered under existing directions for the protection of the physical environment and solitude of the area. Threatened and endangered plant and animal species will be protected. The unique environment of this area will be preserved and only ecological changes will occur. The visual quality objective for these areas is preservation. Trails and trailhead entrances will be developed only to accommodate planned use consistent with social objectives, e.g., solitude and the physical environment of the area. Wilderness Recommendation Areas will be added to the Natural Wilderness Preservation System by Congressional legislation only. Neither roads nor timber harvest will be permitted in these areas. Off-road vehicles will not be permitted. Mineral, power, flood control, and water development entries have been, or will be, withdrawn. (All Congressionally-designated Wilderness will be withdrawn from mineral entry after December 31, 1983.)



## Management Area 15

Management Area 15 is an area designated for further planning. Land allocations will be delayed until roadless areas placed in the further planning category are considered for all uses, including wilderness. Development activities such as timber harvest, road construction, and other activities that may reduce wilderness potential of the land, will be prohibited. Activities permitted by prior rights, existing law, and other established uses may continue pending final disposition of the area. Recreationists and other forest users may continue use of motorized equipment within these areas as permitted or controlled by off-road vehicle management plans. Although no harvesting of timber will be allowed from these areas other than for emergency reasons, standing timber on commercial forest land in the areas will be used to determine potential yield; however, annual harvest levels will be reduced pending the results of planning.



Rafting the Illinois River



### c. Description of Alternatives

Alternative A: Alternative A is the "no change/no action" alternative. Basically existing land management trends continue in the Unit. This alternative is composed of eight different land management allocations. This alternative represents the present situation as it is today.

Table IV A-1 shows the land management allocations under Alternative A.

Table IV A-1. Land Management Allocations Under Alternative A for the Chetco-Grayback Planning Unit.

Allocation	Acreage	% of Unit Acreage
Management Area 1 (Coordinated Resource)	363,503	78.2
Management Area 11 (Existing Wilderness)	88,675	19.0
Management Area 11 (Proposed Wilderness)	4,950	1.1
Management Area 4 (Scenic River)	4,712	1.0
Management Area 9 (Research Natural)	1,608	0.3
Management Area 15 (Further Planning)	950	0.2
Management Area 10 (Botanical)	210	0.1
Management Area 5 (Wild River)	104	0.1
TOTAL Planning Unit	464,712	100.0

A preliminary report has been completed on the Illinois River. The report recommended that the area in this Planning Unit from the Forest boundary near Josephine Creek downstream to Briggs Creek be allocated as a scenic river and be included in the National Wild and Scenic River System. Also, the RARE II study indicated that 4,950 acres of Roadless Area 6701 should be wilderness, and 950 acres of Roadless Area 6707 should be in a further study category. It will be protected until a decision is made by Congress.

This no change/no action alternative has two proposed and one existing research natural area, a botanical area, and a wilderness.

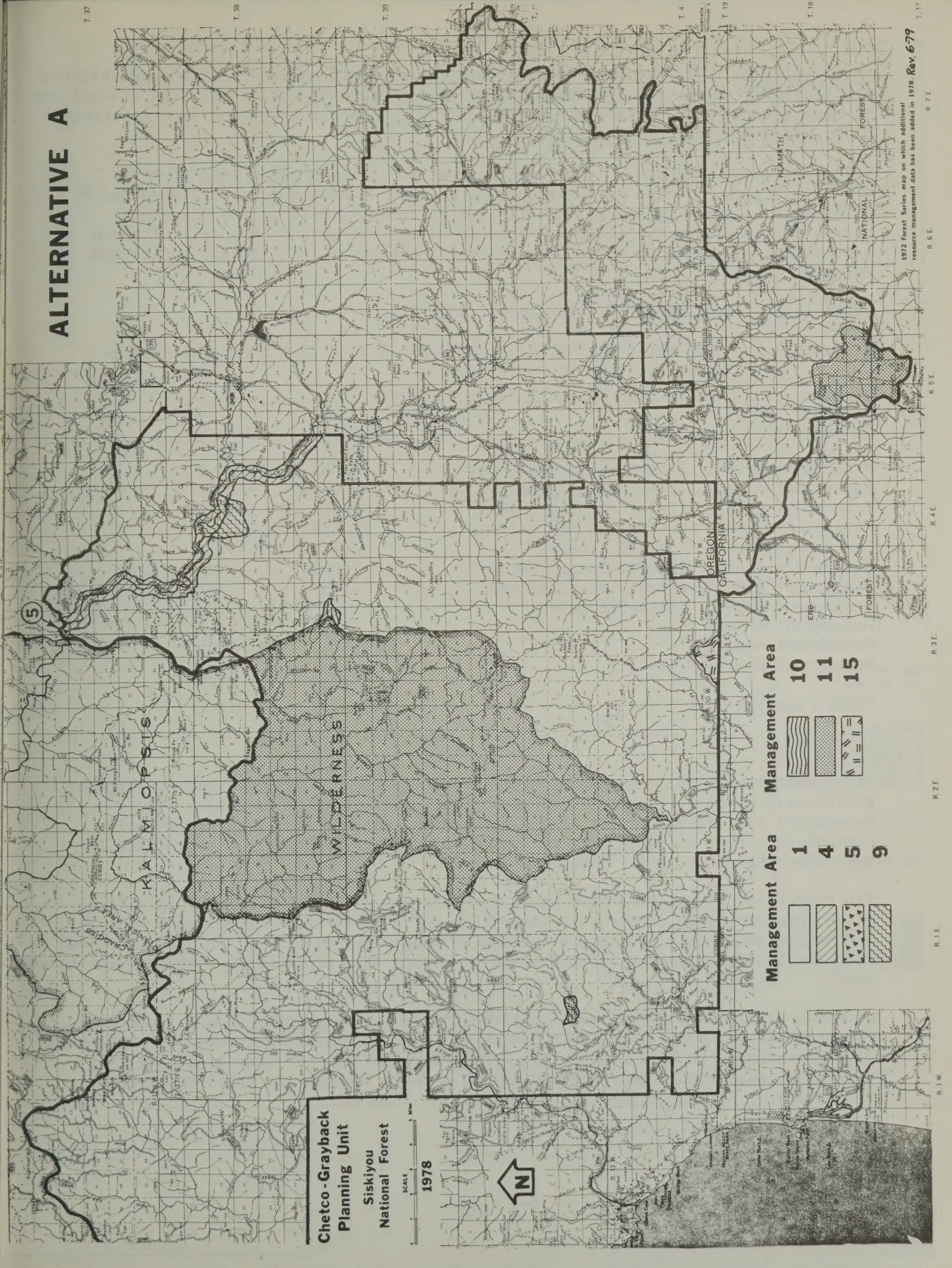
These allocations have a high output level which will maintain a viable economy in the local communities. High level timber production will be maintained or eventually increased when intensive management techniques are used. Under this alternative, the harvest level would remain at approximately the current level. The potential yield for this Planning Unit is estimated to be much higher, but many acres of hardwoods would have to be converted to conifer production before a higher volume increase could be realized. This would require increased investments and conversion methods that are both economical and effective.

Most of the mineral bearing ore deposits on this Unit would be available for mining under this alternative.

Developed sites and road related dispersed recreational opportunities will increase under this alternative because of the increased road development for timber harvest. Fishing, hunting, driving for pleasure, and camping are the types of dispersed recreation which will increase the most.



# ALTERNATIVE A





Alternative B. Alternative B consists of a mixture of resource uses and activities, but basically emphasizes the natural environment with the additional area allocations to Management Area 2 (dispersed recreation) areas. There are seven land management allocations involved in this alternative.

This alternative recommends dispersed recreation on those areas seen from the Illinois River. It also places dispersed recreation on the presently unroaded Mt. Emily area. This alternative restricts resource activities on the dispersed recreation areas and the Illinois River Corridor. To some degree, all of these allocations will have an effect on the local, regional, and national social and economic goals.

Table IV B-1 shows the land allocations under Alternative B.

Table IV B-1. Land Management Allocations Under Alternative B for the Chetco-Grayback Planning Unit.

Allocation	Acreage	% of Unit Acreage
Management Area 1 (Coordinated Resource)	304,759	65.6
Management Area 11 (Proposed Wilderness)	4,950	1.0
Management Area 11 (Existing Wilderness)	88,675	19.1
Management Area 2 (Dispersed Recreation)	52,926	11.4
Management Area 4 (Scenic River)	4,712	1.0
Management Area 7 (Recreation/Fisheries)	1,580	0.3
Management Area 6 (Fisheries/Watershed)	4,238	0.9
Management Area 9 (Research Natural)	1,608	0.3
Management Area 5	104	0.1
Management Area 10	210	0.1
Management Area 15	950	0.2
TOTAL Planning Unit	464,712	100.0

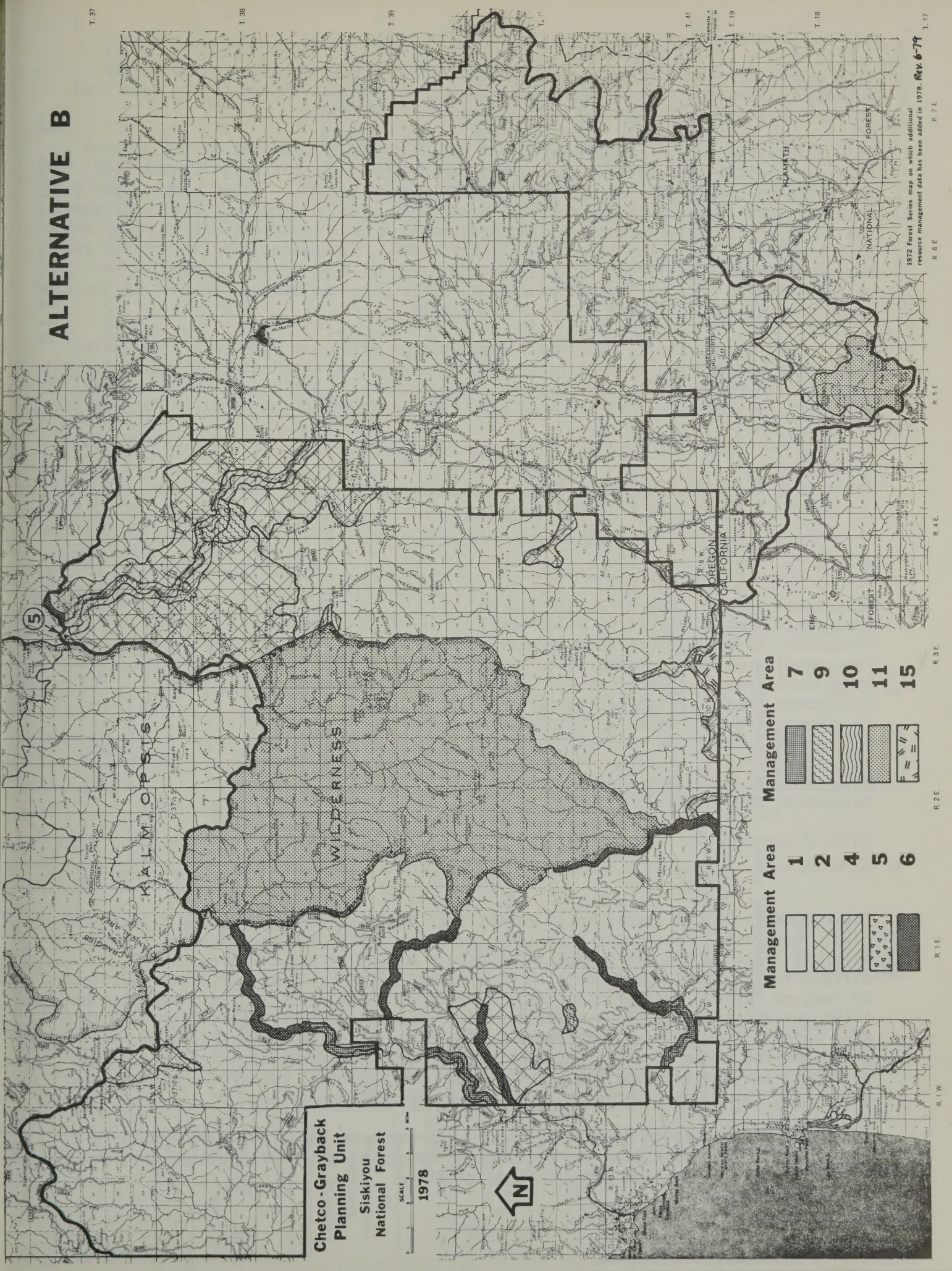
Management Area 1 produces the majority of the timber harvest and road development activities, however, some activity may be scheduled in Management Area 2, Management Area 6, Management Area 7, and Management Area 4. These areas will contribute only a modified harvest from which the harvest level is calculated to meet the management goals.

The commercial timber land base would be reduced substantially under this alternative; however, when compared to the entire unit, these areas (Management Area 11 and Management Area 2) are below average in timber productivity. This alternative, with the indicated land allocation, would produce only 67 percent of the present harvest level.

Although access development will continue throughout Management Area 1 (commodity resource management), the maximum potential for road-related recreational activities will be reduced for this alternative. Opportunities for solitude or a primitive type experience should be increased, along with an increase in trail-related recreation.



# ALTERNATIVE B





Alternative C. Alternative C represents a blend of both amenity and commodity outputs. There are ten different land management allocations which are described in Section IV, Description of Land Management Allocations.

This alternative would allocate a 65,974 acre area south and east of the present Kalmiopsis Wilderness to Management Area 2 (dispersed recreation). Essentially, it is the southeast part of the present Roadless Area 6709. Timber harvest could occur in this zone, but a near natural appearance would be the main goal. Management Area 6 (fisheries/watershed) and Management Area 7 (recreation/fisheries) are allocated along the major anadromous fish streams. Management Area 4 (scenic) and Management Area 5 (wild) along the Illinois River will be protected similar to restrictions in the previous alternatives, until Congress decides whether to include it in the National Wild and Scenic River System.

Other areas where scenic, botanical, and research sites are located are allocated to protect and enhance their values. Those involved in this category are Management Area 10 (Babyfoot Lake Special Interest Area-Botanical) and Management Area 9 (Wheeler Creek Research Natural Area and Proposed Hoover Gulch Research Natural Area).

Table IV C-1 shows the land allocations under Alternative C.

Table IV C-1. Land Management Allocations Under Alternative C for Chetco-Grayback Planning Unit.

Allocation	Acreage	% of Unit Acreage
Management Area 1 (Coordinated Resource)	281,992	60.7
Management Area 11 (Existing Wilderness)	88,675	19.1
Management Area 2 (Dispersed Recreation)	75,693	16.2
Management Area 11 (Proposed Wilderness)	4,950	1.1
Management Area 4 (Scenic River)	4,712	1.0
Management Area 6 (Fisheries/Watershed)	4,238	0.9
Management Area 9 (Research Natural)	1,608	0.3
Management Area 7 (Recreation/Fisheries)	1,580	0.3
Management Area 15 (Further Planning)	950	0.2
Management Area 10 (Botanical)	210	0.1
Management Area 5 (Wild River)	104	0.1
TOTAL Planning Unit	464,712	100.0

The commodity output levels would essentially be maintained under this alternative. Generally, Management Area 1 is the highest site timber producing land in this Unit. It is managed for maximum outputs except in special areas where different management constraints on streamside, visual, and soil dictate modified or reduced harvest level. Under this alternative, the timber harvest would amount to 93 percent of the present harvest level. This percentage could increase with more intensive management. Management Area 2 is intermixed with medium to low site land for timber production; however, its geologic formations indicate a high potential for mineral deposits. Most of the known mineral deposits are within an allocation which would permit road access and mining operations.

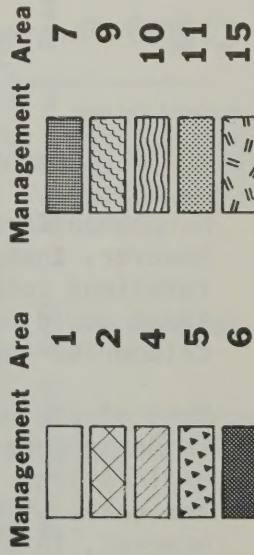
Road-related recreation potentials should improve over the present as access is gained over Management Area 1. Backpacking opportunities on recreation trails should also be maintained under this alternative.



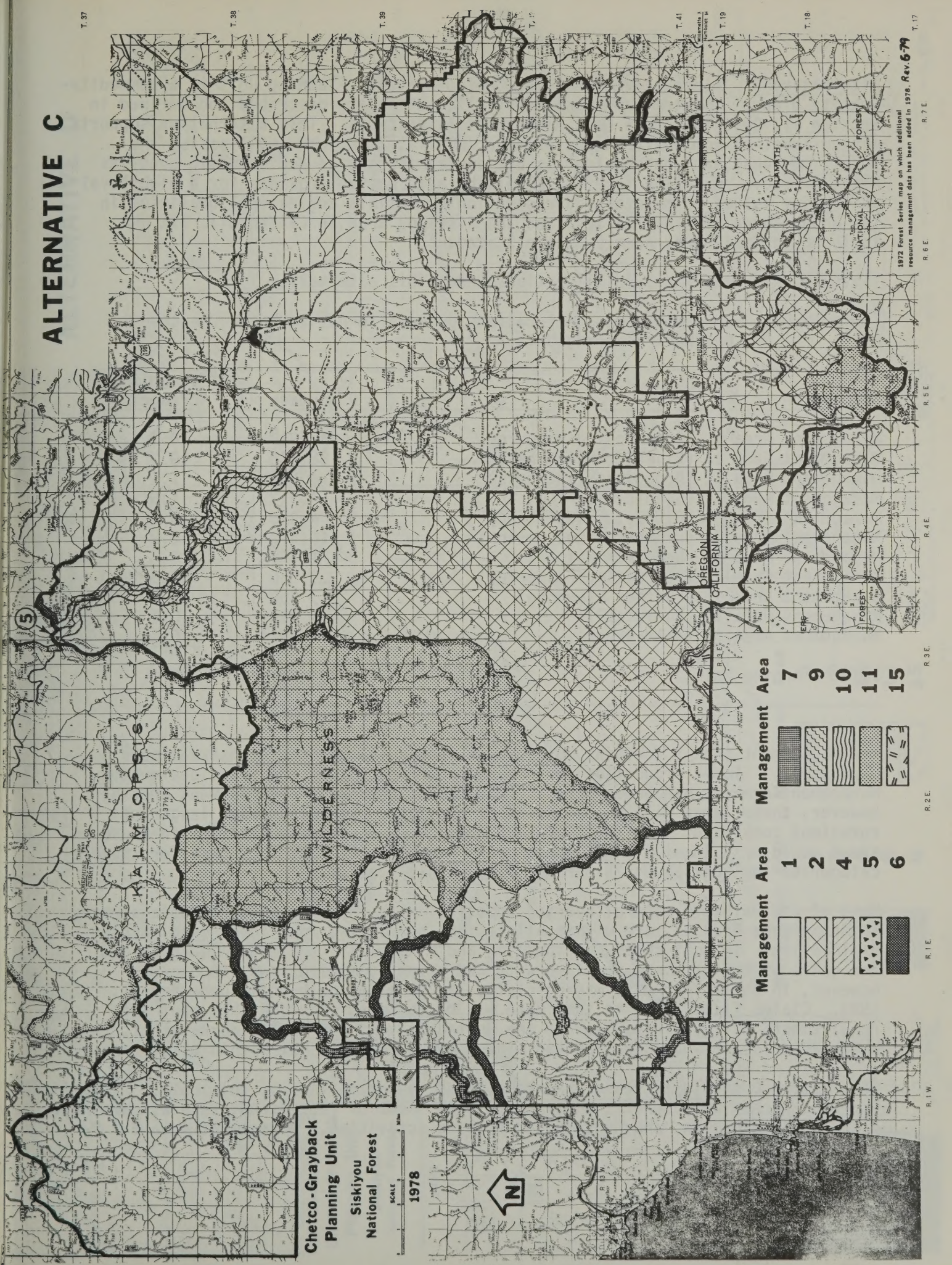
# ALTERNATIVE C

Chetco-Grayback  
Planning Unit  
Siskiyou  
National Forest

SCALE  
1978



1972 Forest Series map on which additional  
resource management data has been added in 1978, Rev. 6-79





Alternative D: Alternative D for the Chetco-Grayback Planning Unit is a commodity-amenity blend. The ten land management allocations are described and defined in Section IV, Description of Land Management Allocations. This alternative supports a high level of commodity output (timber, mineral, etc.) and will assist the local, regional, and national goals by maintaining social and economic benefits near, or above, existing levels. Also, the alternative provides for a high level of amenity values by maintaining recreation potentials and natural qualities in the unique area at Windy Valley, and the Siskiyou area in California. It is included in Management Area 2 in the Statement.

Table IV D-1 shows the land allocations under this alternative.

Table IV D-1. Land Management Allocations Under Alternative D for Chetco-Grayback Planning Unit.

Allocation	Acreage	% of Unit Acreage
Management Area 1 (Coordinated Resource)	347,313	74.7
Management Area 11 (Existing Wilderness)	88,675	19.1
Management Area 11 (Proposed Wilderness)	4,950	1.1
Management Area 4 (Scenic River)	4,712	1.0
Management Area 6 (Fisheries/Watershed)	4,238	0.9
Management Area 2 (Dispersed Recreation)	10,372	2.2
Management Area 9 (Research Natural)	1,608	0.3
Management Area 7 (Recreation/Fisheries)	1,580	0.3
Management Area 15 (Further Planning)	950	0.2
Management Area 10 (Botanical)	210	0.1
Management Area 5 (Wild River)	104	0.1
TOTAL Planning Unit	464,712	100.0

The Management Area 1 contains most of the land suitable for intensive timber management. Timber production could also occur on most of the areas designated Management Area 2, Management Area 6, Management Area 7, and Management Area 4; however, these areas will be harvested at a reduced rate (increased length of rotation) consistent with their primary goals. Development activities in these areas would only involve improvement of existing roads. The land base for these categories includes about 79 percent of the Unit's acres.

Most of the valuable mineral bearing deposits, with the exception of those already in Management Area 11, are within allocations permitting road access and machine exploration. In most cases, prospecting and mining will not be denied provided the goals of the area are complied with and existing mining laws are obeyed; however, in the wilderness, mining claims may be filed only until December 31, 1983. Claims filed prior to that date may be operated provided they meet the requirements of the mining laws of the United States, and the Wilderness Act, which describes how exploration and mining may be carried out within wilderness.

Alternative D should increase the recreational opportunities on this Unit. Improved access will benefit the road related forms of recreation, such as camping, driving for pleasure, and hunting and fishing activities. Management Area 6



# ALTERNATIVE D

Chetco-Grayback  
Planning Unit  
Siskiyou  
National Forest

1978



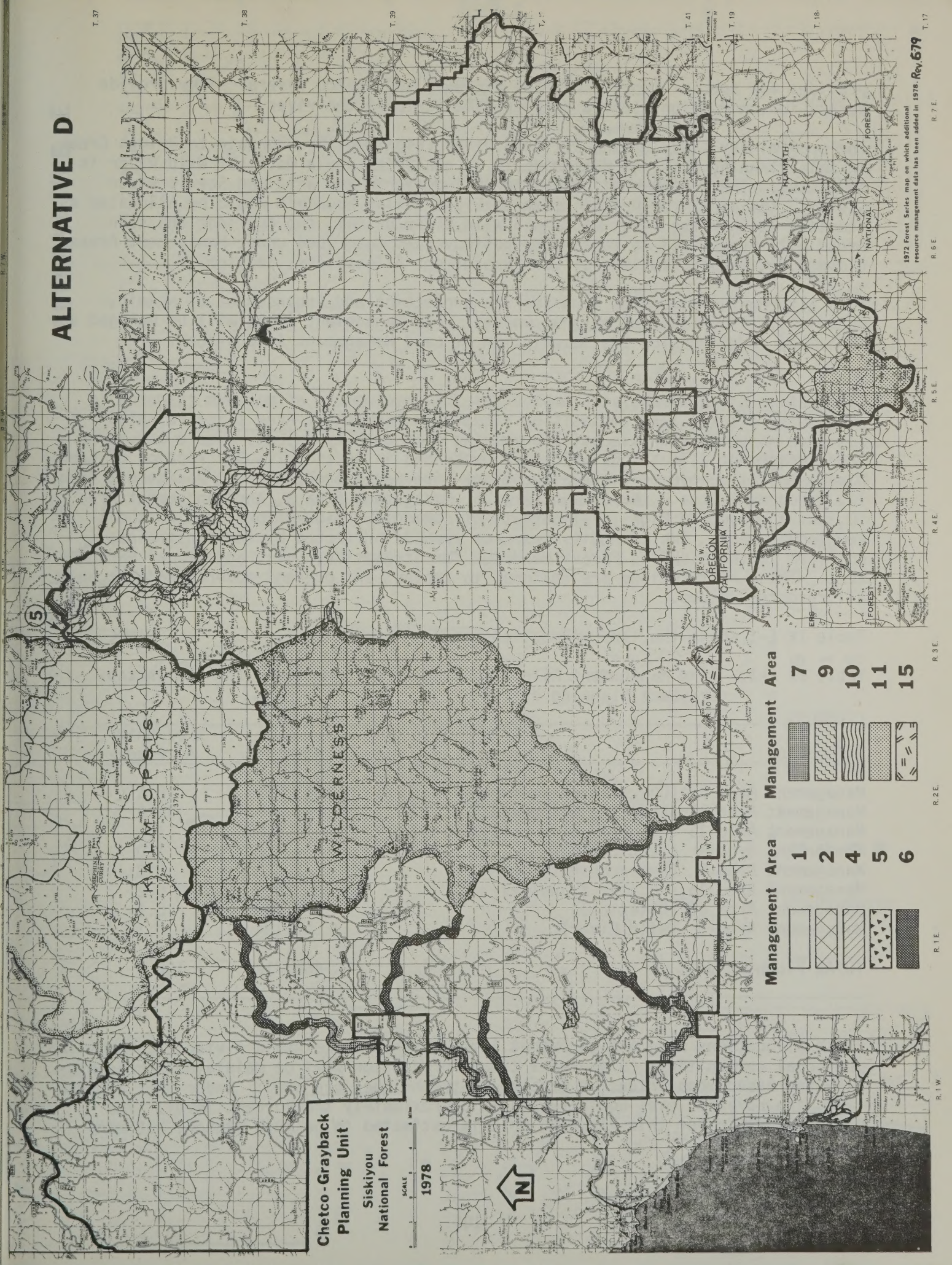
SCALE  
0 1 2 3 Miles

**Management Area**

1	2	4	5	6
[Blank]	[Diagonal lines /]	[Diagonal lines \]	[Cross-hatch]	[Solid black]

**Management Area**

7	9	10	11	15
[Horizontal lines]	[Wavy lines]	[Vertical lines]	[Stippled]	[Diagonal lines /]





provides for special zones along the Winchuck and Chetco rivers. They provide access for recreation along a quarter-mile strip of the river.

The preliminary study on the Illinois River (Eight Dollar Mountain to Briggs Creek in this Planning Unit) to determine if it qualifies for a National Wild River is completed. The recommendation was to include it in the Wild and Scenic River System. The area from Briggs Creek to Eight Dollar Mountain would be allocated as scenic. Whether the river becomes a Wild River or not, the corridor and seen areas will be managed to retain the basic values described under Management Areas 5 and 6 in the Descriptions of Land Management Allocations, Section IV.

This alternative allocates land for the protection and enhancement of scenic, botanical, fisheries, and natural values. The Management Areas will be managed as indicated under Section IV, Description of Land Management Allocations.

Alternative E: Alternative E emphasizes the development of maximum resource outputs by placing less emphasis on visuals in Management Area 1 (coordinated resource management) while still providing some amenity values. There are seven land management allocations which are described in Section IV, Description of Land Management Allocation. These allocations give added protection to Management Area 11, Management Area 4, Management Area 5, Management Area 9, and Management Area 10, while producing high level outputs of commodity resource products on the remaining areas. The commodity resource area is protected by the constraints outlined in the Siskiyou Forest Handbook for Streamside, Soil, and Visual Management. These restrictions are designed to protect and prevent adverse effects on all resource values.

Table IV E-1 shows the land allocations under Alternative E.

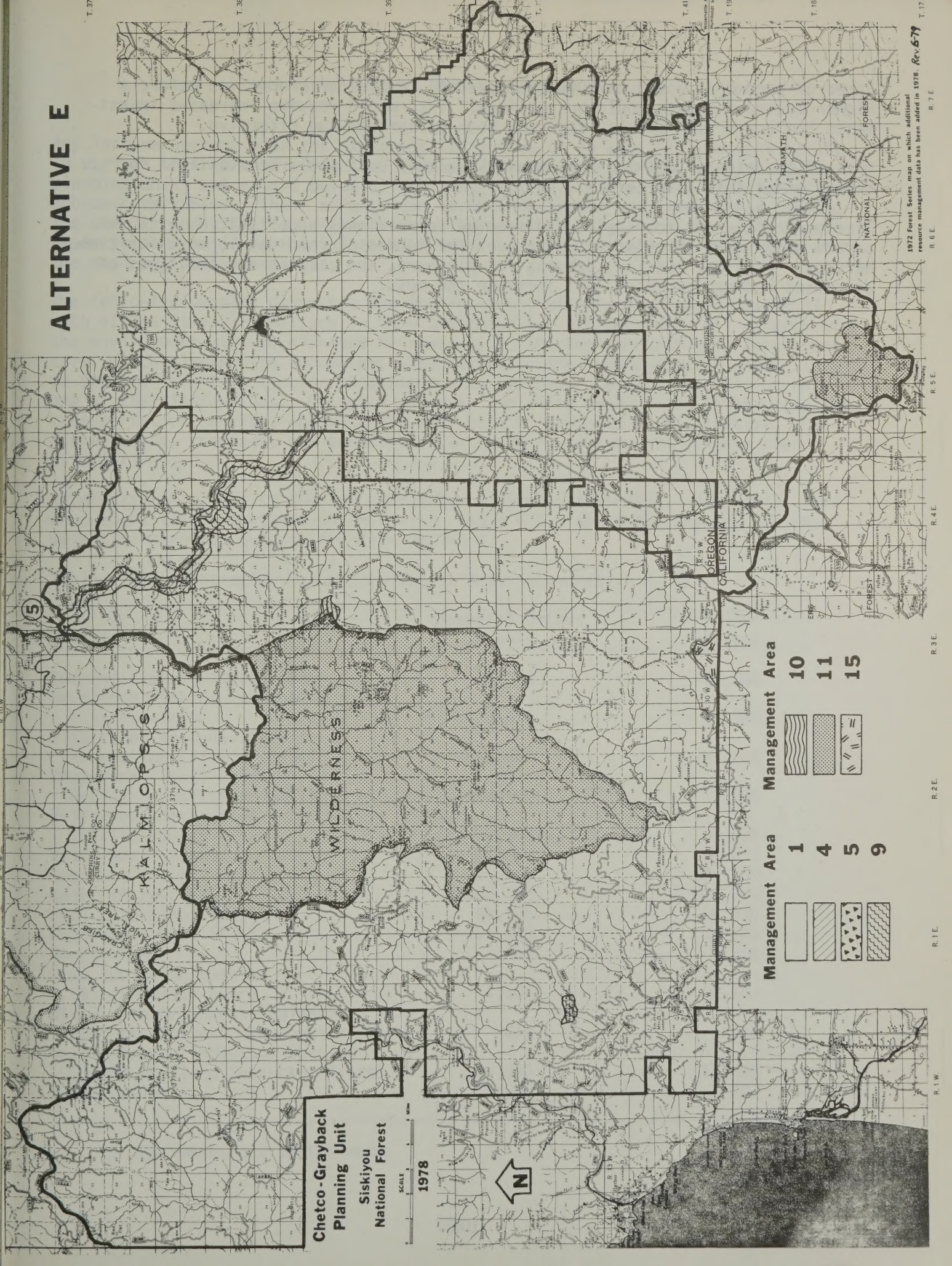
Table IV E-1. Land Management Allocations Under Alternative E for the Chetco-Grayback Planning Unit.

Allocation	Acreage	% of Unit Acreage
Management Area 1 (Coordinated Resource)	363,503	78.1
Management Area 11 (Existing Wilderness)	88,675	19.1
Management Area 11 (Proposed Wilderness)	4,950	1.1
Management Area 4 (Scenic River)	4,712	1.0
Management Area 9 (Research Natural)	1,608	0.3
Management Area 15 (Further Planning)	950	0.2
Management Area 10 (Botanical)	210	0.1
Management Area 5 (Wild River)	104	0.1
TOTAL Planning Unit	464,712	100.0

These allocations have a high output level which will maintain a viable economy in the local communities. High level timber production will be maintained or eventually increased when intensive management techniques are used. Under this alternative, the harvest level would remain at approximately the current level. The potential yield for this Planning Unit is estimated to be much higher, but many



# ALTERNATIVE E



Chetco-Grayback  
Planning Unit  
Siskiyou  
National Forest

SCALE  
0 1 2 Miles  
1978



Management Area	Management Area
1	10
4	11
5	15
9	



acres of hardwoods would have to be converted to conifer production before a higher volume increase could be realized. This would require increased investments and conversion methods that are both economical and effective.

Most of the mineral bearing ore deposits on this Unit would be available for mining under this alternative.

Developed sites and road related dispersed recreational opportunities will increase under this alternative because of the increased road development for timber harvest. Fishing, hunting, driving for pleasure, and camping are the types of dispersed recreation which will increase the most.



## V. EFFECTS OF IMPLEMENTATION

Any land management plan that proposes activities on an area of land will result in various environmental effects. These effects are not limited to just the planning unit, but extend beyond, involving physical, biological, social, and economic variables. These effects can be both desirable and undesirable, depending upon an individual's interests and viewpoints. The goal of the land manager or decisionmaker is to maintain a high level of favorable effects while generating the most net public benefits.

The following section discusses the environmental effects that would result if each of the five alternatives in this Statement was implemented. All aspects of the environment will be affected in some way by the implementation of an alternative. Each alternative recommends allocations to the ten Management Areas listed in Section IV. A particular management area may occur in all, several, or only one of the alternatives. Resource outputs, including recreation, timber, grazing, transportation, energy, and mineral, will vary accordingly by alternative. Expected goods, services, and amenities will serve to measure and compare the alternatives.

Alternative A: This is the "no change/"no action" alternative. Basically, land management trends continue in the Unit. Table V A-1 shows the present and the potential resource outputs for Alternative A.

Table V A-1. Estimated Output Potentials Under Alternative A. 1/

Output	Potential Output Levels	Present Output
Current Timber Harvest (MBF)	58,000	58,000
Developed Site Recreation (Visitor-Days)	79,600	59,500
Dispersed (Road-Related) Recreation (Visitor-Days)	410,800	251,800
Dispersed (Trail-Related) Recreation (Visitor-Days)	114,900	11,000
Wilderness Recreation (Visitor-Days)	29,100	7,800
Wilderness (Acres)	88,675	88,675
Sediment (Cubic Yards)	139,100	139,100
Water (Acre-Feet)	2,808,200	2,808,200
Fuel Load (Tons/Acre)	66,900	66,900
Anadromous Fish (Fish)	61,600	65,500
Range (AUM)	2,830	1,350
Game Indicator Species (Black-tailed Deer)	4,100	4,100
Old-Growth-Dependent Indicator Species (Pileated Woodpecker Pairs)	514	680
Cavity-Nester Indicator Species (Yellow-bellied Sapsucker Pairs)	19,945	27,300
Roads (Miles)	1,230	790

1/ Estimates are approximate.



The environmental effects or potential environmental effects which would result from Alternative A are summarized below. Some of the actions to be employed to minimize these effects are also listed where appropriate.

A. Air Quality

This alternative will have little effect on the air quality as compared with existing levels. Timber harvest, road construction, and slash burning will continue at or near present rates and will have only a temporary, localized effect on air quality. Smoke management guides will continue to be used to assure satisfactory air quality.

B. Fire

Fuel loading will tend to be somewhat lower than the current level because of increased management activities such as timber harvest, slash treatment, and road building.

Fire suppression efforts will be aided by increased access; however, this tends to increase risk of ignition because more people use the area. The potential for large fires would be reduced.

C. Fisheries, Soil, and Water

Anadromous fish production would decrease slightly from the current level. Sediment production and water yields will increase above current levels. Water temperatures and water quality tend to increase following some management activities (timber harvest, road construction), however, these fluctuations are temporary.

Although this alternative does not contain Management Area 6 allocation, the existing Streamside and Soil Management Policies afford adequate protection for the important anadromous fish producing streams.

D. Future Options

Future land management options would be reduced in the unroaded areas; however, prospects of rapid development in the near future would be very limited and uncertain because of the characteristics of the area.

E. Historic and Archeologic

This alternative will not have any significant effects on historical or archeological sites. The State Historic Preservation Officer has reviewed the material documenting the "Determination of No Effect" for this Planning Unit and concurs with this determination for the project (see Appendix).

The project planning process for any ground-disturbing activities will include an on-the-ground inventory of cultural resource sites, districts, object, and structures, as required by Executive Order 11593. Compliance with 36CFR800 procedures will be accomplished in the project environmental assessment.



This alternative complies with the American Indian Religious Freedom Act of 1978 and the NFMA of 1976. A literature search which was recently completed, revealed very little information about the religious practices and the traditional uses of the land by the Indians living in this area. The Forest also contacted the Native American Research Center in Coos Bay on March 2, 1979, but there was no reply. The only known religious sites are located on several mountaintops. These areas were used for religious rituals and are in no danger of being destroyed.

F. Minerals

Most of the mineral deposits would be available for mining in this alternative. They are open to entry and accessible for exploration. An exception is the Kalmiopsis Wilderness which will be closed to prospecting and exploration after December 31, 1983. Management Area 9 will be recommended for mineral withdrawal. Mining operations will be operated under existing regulations.

G. Noise

Noise pollution will be increased slightly by this alternative because of the increased timber harvest, road construction, and other contributing management activities.

H. Recreation

Developed site and road related dispersed recreation (hunting, fishing, and driving for pleasure) would increase under this alternative. Management activities which develop the transportation system for access are the primary reason for the increase.

The quality for trail hiking opportunities will decline somewhat as development and other symbols of civilization are contacted.

I. Roadless Area

All roadless areas, except 6701 and 6707, are allocated to non-wilderness uses.

J. Socio-Economics

This alternative will maintain the existing jobs either directly or indirectly dependent on the resources of this Unit. In future years, jobs could increase with intensive management, better utilization, genetically improved planting stock, and/or fertilization. Although there appear to be a substantial number of fisheries, recreation, and other-related jobs, they account for a relatively small percentage of the timber-related jobs. Available information makes it difficult, if not impossible, to make a quantified estimate.

K. Timber

The annual harvest level would stay the same. Intensive management practices could substantially increase the timber production in this Unit.



Preliminary estimates indicate that the potential output level could be considerably higher than the present output level. The basic calculation of the present allowable cut, using existing volumes and growth figures (Hanzlik Formula), is responsible for the low present output. Many potentially productive areas on the westside of the Unit have either low or nonexistent conifer volumes; therefore, they do not contribute any volume to the programmed annual harvest figure. Future timber yields from these areas are dependent on an investment for site preparation or a conversion project.

L. Vegetation

Relative to the present situation, effects on vegetation will remain essentially unchanged. Ecological change will continue in areas to be left in a natural state. Areas under development will be returned to an earlier successional stage before ecological change relentlessly continues.

Management under this alternative would maintain populations of all existing floral species; however, there will tend to be less floral diversity in intensively managed second-growth stands. The percentage of commercially valuable species, such as Douglas-fir, will tend to be substantially higher than in existing old-growth forests. This generally reflects the present situation and, therefore, represents no change in trend.

M. Visual

This alternative will increase over the current rate, the amount of man-dominated landscape within the Unit. The Streamside and Visual Management Plan will protect additional areas of old growth.

In addition to providing visual benefits, Visual Resource Management constraints tend to increase development costs and decrease the possibility of approaching full biologic potential for timber production.

N. Wilderness

This alternative will add approximately 4,950 acres to the wilderness system. As development or access progresses into the Unit, possible areas for wilderness designation will be reduced. Congress recently added 31,600 acres to the existing Kalmiopsis Wilderness in this Unit.

O. Wildlife

This alternative will continue to provide essential habitat for black-tailed deer, Roosevelt elk, and other game species.

Population levels of all game species will tend to increase as undeveloped areas are accessed for timber harvest.

Alternative A will adequately protect any known specimen of threatened and endangered species on this Unit. Some of the land management allocations (21 percent), Visual Management Areas, and Streamside Management Zones all provide protection to wildlife because of either a modified harvest rate or a near natural condition. The Snag Management guidelines will help preserve habitat by ensuring that adequate numbers of snags useful to wildlife are retained, even in fully developed areas.



Alternative B: This is an amenity-oriented alternative. Table V B-1 compares the present output level with the potential output level for this alternative.

Table V B-1. Estimated Output Potentials Under Alternative B. 1/

Output	Potential Output Levels	Present Output
Current Timber Harvest (MBF)	52,100	58,000
Developed Site Recreation (Visitor-Days)	77,100	59,500
Dispersed (Road-Related) Recreation (Visitor-Days)	373,600	251,800
Dispersed (Trail-Related) Recreation (Visitor-Days)	115,000	11,000
Wilderness Recreation (Visitor-Days)	29,100	7,800
Wilderness (Acres)	88,675	88,675
Sediment (Cubic Yards)	134,700	139,100
Water (Acre-Feet)	2,807,300	2,808,200
Fuel Load (Tons/Acre)	68,300	66,900
Anadromous Fish (Fish)	63,900	65,500
Range (AUM)	2,510	1,350
Game Indicator Species (Black-tailed Deer)	3,900	4,100
OldGrowthDependent Indicator Species (Pileated Woodpecker Pairs)	577	680
Cavity-Nester Indicator Species (Yellow-bellied Sapsucker Pairs)	21,200	27,300
Roads (Miles)	1,070	790

1/ Estimates are approximate.

The environmental effects or potential environmental effects which would result from Alternative B are summarized below. Some of the actions to be employed to minimize these effects are also listed where appropriate.

#### A. Air Quality

This alternative would pollute the air less than any of the other alternatives due to less timber harvest, slash disposal, and road development activities. No development activities would occur in Management Area 11, 9, or 2. Only modified activity will occur in Management Area 4, 6, and 7.

The Smoke Management System would continue to be used to maintain satisfactory air quality.

#### B. Fire

The risk of large fires because of access problems, and a marginal increase in fuel loading are factors involved under Alternative B. Potential fuel loading could decrease by about two percent.



C. Fisheries, Soil, and Water

The potential number of anadromous fish would decrease slightly in spite of the undisturbed areas recommended for wilderness; also the habitat improvement measures to increase fish production in areas allocated to wilderness will be foregone. Sediment levels would decrease slightly, although water quality, quantity, and temperature would remain at nearly the same level.

D. Future Options

Future land management options would be maintained in all inventoried roadless areas under this alternative. Short-term options would be reduced in Management Area 2.

E. Historic and Archeologic

This alternative will not have any significant effects on historical or archeological sites. The State Historic Preservation Officer has reviewed the material documenting the "Determination of No Effect" for this Planning Unit and concurs with this determination for the project (see Appendix).

The project planning process for any ground-disturbing activities will include an on-the-ground inventory of cultural resource sites, districts, object, and structures, as required by Executive Order 11593. Compliance with 36CFR800 procedures will be accomplished in the project environmental assessment.

This alternative complies with the American Indian Religious Freedom Act of 1978 and the NFMA of 1976. A literature search which was recently completed, revealed very little information about the religious practices and the traditional uses of the land by the Indians living in this area. The Forest also contacted the Native American Research Center in Coos Bay on March 2, 1979, but there was no reply. The only known religious sites are located on several mountaintops. These areas were used for religious rituals and are in no danger of being destroyed.

F. Minerals

The availability of mineral bearing materials will be affected by a wilderness allocation because mining claims must be filed before January 1, 1984, in such areas. Those claims filed prior to that date may be operated under the requirements of the Mining Laws of the United States and The Wilderness Act. Management Area 9 will be recommended for withdrawal from mineral entry.

This alternative would not reduce the availability of important commercial minerals and lapidary materials.

G. Noise

The noise level in Management Area 11 would be less detrimental due to no timber harvest or road development activities. Approximately 20 percent of the Unit would be managed in a near natural condition.



#### H. Recreation

Potential non-roaded dispersed recreation opportunities will increase under this alternative. Relative to the present, trail-related dispersed recreation could increase substantially. Road-related dispersed recreation (driving for pleasure, etc.) potential could increase about 48 percent.

The quality of opportunities for hikers in the proposed roadless recreation areas would remain at their current relatively high level.

#### I. Roadless Area

Under this alternative all roadless areas are allocated to a non-wilderness designation, with the exception of 4,950 acres of Area 6701 and 950 acres of Area 6707.

#### J. Socio-Economics

Alternative B will have a greater affect on socio-economic trends than any other alternative discussed. The reduced commodity outputs on the Unit will result in a loss of approximately 10 percent, or 112 existing jobs in the local economy. This would contribute heavily to the already unstable economic and employment problems in Josephine and Curry Counties. Intensive management, better utilization, genetically improved planting stock, and/or fertilization could improve this condition in future years. Although there appear to be a substantial number of fisheries, recreation, and other-related jobs, available information makes it difficult, if not impossible, to arrive at a quantified estimate.

Young, old, poorly educated, low income, and minority groups are likely to be most severely impacted under this alternative. First, they are more likely to lose jobs. Secondly, alternate job skills may not be well developed among many persons in these groups.

A reduction in Management Area 1 will definitely have an effect on the revenue payments in lieu of taxes to the local government, as well as the returns to the Federal Treasury.

#### K. Timber

Under this alternative the annual harvest level would be reduced to 90 percent of the current level. Management Area 11 reduces the forest land base used to compute the annual harvest rate. Intensive management practices could increase the harvest level above the present level.

#### L. Vegetation

Relative to present trends, much larger areas would be subject to ecological changes only. The percentage of less shade-tolerant and more commercially-valuable timber species would decline under such conditions.

#### M. Visual

Alternative B will have the least amount of man-dominated landscape of all the alternatives. Management Area 11 will assure a primitive and solitude type atmosphere. The visual allocation for this area is preservation.



## N. Wilderness

This alternative restricts all management activities that would alter the landscape in Management Area 11.

## O. Wildlife

Wildlife habitat favorable for cavity-nesters and old-growth-dependent species would be maintained under this alternative; however, wildlife habitat favorable to big game species would decrease due to reduced timber harvest activities.

Alternative B will adequately protect any known specimen of threatened and endangered species on this Unit. Some of the land management allocations (38 percent), Visual Management Areas, and Streamside Management Zones all provide protection to wildlife because of either a modified harvest rate or a near natural condition. The Snag Management guidelines will help preserve habitat by ensuring that adequate numbers of snags useful to wildlife are retained, even in fully developed areas.



Alternative C: This is an amenity-commodity blend alternative. The area south-east of the present wilderness would be designated as Management Area 2 where harvest activities would be modified. Also, Management Area 2 would be established in two additional areas where primitive conditions would be maintained. Table V C-1 compares the actual output level with the potential output level for this alternative.

Table V C-1. Estimated Output Potentials Under Alternative C. 1/

Output	Potential Output Levels	Present Output
Current Timber Harvest (MBF)	53,800	58,000
Developed Site Recreation (Visitor-Days)	77,200	59,500
Dispersed (Road-Related) Recreation (Visitor-Days)	366,100	251,800
Dispersed (Trail-Related) Recreation (Visitor-Days)	115,200	11,000
Wilderness Recreation (Visitor-Days)	29,100	7,800
Wilderness (Acres)	88,675	88,675
Sediment (Cubic Yards)	134,600	139,100
Water (Acre-Feet)	2,807,400	2,808,200
Fuel Load (Tons/Acre)	67,800	66,900
Anadromous Fish (Fish)	62,600	65,500
Range (AUM)	2,960	1,350
Game Indicator Species (Black-tailed Deer)	3,400	4,100
Old-Growth-Dependent Indicator Species (Pileated Woodpecker Pairs)	568	680
Cavity-Nester Indicator Species (Yellowbellied Sapsucker Pairs)	21,056	27,300
Roads (Miles)	1,120	790

1/ Estimates are approximate.

The environmental effects or potential environmental effects which would result from Alternative C are summarized below. Some of the actions to be employed to minimize these effects are also listed where appropriate.

#### A. Air Quality

This alternative should have little effect on the air quality as compared to existing levels. Smoke management guides will continue to be used to assure satisfactory air quality. Activities that produce smoke or dust will primarily occur on Management Area 1.

#### B. Fire

Fuel loading should not change to any great extent from present levels. Fast initial attack on wildfire will be aided by increased access. This will reduce the potential for large fires. Road related activities tend to increase the risk of ignition.



### C. Fisheries

Soil disturbances could occur almost anywhere in Management Area 1 due to timber harvest and road construction activities. This would also have an effect on sediment, water temperatures, and water quality. Sediment production and water temperatures tend to increase immediately following removal of shading vegetation, however, this is usually only a temporary condition. Vegetation and litter cover reduce the detaching and transporting power of water, while increasing the structure and stability of the soil; removing the vegetation can cause temporary fluctuations in flows.

Fish production will remain stable under this alternative.

### D. Future Options

After some years, land management options for most of the currently designated roadless area acreage will be substantially reduced. At that point, options for wilderness, research natural area, administrative roadless, and other non-development allocations will be lost; however, most land use options involving some degree of development will be maintained, perhaps indefinitely.

Short-term options are reduced for use of the areas under allocations essentially maintaining natural conditions.

Areas allocated for development under this alternative will be gradually developed over a period of one or more decades. Allocated areas which essentially maintain natural conditions can be reallocated to development allocations, if needs in the future so warrant. Both of these tend to extend future options.

### E. Historic and Archeologic

This alternative will not have any significant effects on historical or archeological sites. The State Historic Preservation Officer has reviewed the material documenting the "Determination of No Effect" for this Planning Unit and concurs with this determination for the project (see Appendix).

The project planning process for any ground-disturbing activities will include an on-the-ground inventory of cultural resource sites, districts, object, and structures, as required by Executive Order 11593. Compliance with 36CFR800 procedures will be accomplished in the project environmental assessment.

This alternative complies with the American Indian Religious Freedom Act of 1978 and the NFMA of 1976. A literature search which was recently completed, revealed very little information about the religious practices and the traditional uses of the land by the Indians living in this area. The Forest also contacted the Native American Research Center in Coos Bay on March 2, 1979, but there was no reply. The only known religious sites are located on several mountaintops. These areas were used for religious rituals and are in no danger of being destroyed.



F. Minerals

This alternative will not affect the availability of important mineral bearing material, except that all mining claims must be filed before January 1, 1984, in the wilderness area. Mining activities will be operated under existing regulations. In the event of formal allocation, Proposed Research Natural Areas would be recommended for withdrawal from mineral entry.

G. Noise

The noise levels developed from management activities under this alternative would be marginally lower than current levels. The primary reason is the Management Area 2 (75,693 acres), which provides for less access and mechanical activity.

H. Recreation

The developed site and road-related recreational experience under this alternative would increase, as continued road construction will make more areas accessible. The quality of the opportunities for trail hikers will decline somewhat, as contacts with developments and other symbols of civilization will increase over the present level.

I. Roadless Area

Under this alternative, part of Roadless Area 6701 (Siskiyou) will become wilderness. Most of 6709 (South Kalmiopsis) and a portion of 6180 (Windy Valley) are included in Management Area 2. Roadless Area 6707 (North Fork Smith) has been allocated in RARE II to further planning. The remainder of the roadless areas are allocated to non-wilderness designations.

J. Socio-Economics

This alternative will marginally reduce the existing jobs either directly or indirectly dependent on the resources of this Unit. In future years, jobs could increase with intensive management, better utilization, genetically improved planting stock, and/or fertilization. Although there appear to be a substantial number of fisheries, recreation, and other-related jobs, they account for a relatively small percentage of the timber-related jobs. Available information makes it difficult to make a quantified estimate.

No significant effects are expected on civil rights, minority groups, low income persons, or rural poverty from this alternative.

K. Timber

The annual harvest level would be reduced to approximately 93 percent of the current level under this alternative. Using intensive management practices, the harvest could be increased above the existing level.

Preliminary estimates indicate that the potential output level is considerably higher than the actual output level. The basic calculation of the present allowable cut, using existing volumes and growth figures (Hanzlik Formula), is responsible for the low actual output. Many potentially productive areas on the westside of the Unit have either low or nonexistent



conifer volumes; therefore, they do not contribute any volume to the harvest level figure. Future timber yields from these areas are dependent on an investment for site preparation or in a conversion project.

Approximately 38 percent of this Unit will be maintained in a natural to near natural condition. The remaining portion of the Unit will continue to be converted to managed second-growth stand at about the present rate.

#### L. Vegetation

Relative to the present situation, effects on vegetation will remain essentially unchanged. Ecological change will continue in areas to be left in a natural state. Areas under development will be returned to an earlier successional stage before ecological change relentlessly continues.

Management under this alternative would maintain populations of all existing floral species; however, there will tend to be less floral diversity in intensively managed second-growth stands. The percentage of commercially valuable species, such as Douglas-fir, will tend to be substantially higher than in existing old-growth forests. This generally reflects the present situation and, therefore, represents no change in trend.

#### M. Visual

This alternative will increase over the current rate the amount of man-dominated landscape within the Unit; however, approximately 38 percent of the Unit will be in a land management allocation which will protect the area in a near natural condition. The Visual Management Plan will protect additional areas of old growth.

In addition to providing visual benefits, Visual Resource Management constraints tend to increase development costs and decrease the possibility of approaching full biologic potential for timber production.

#### N. Wilderness

This alternative will add approximately 4,950 acres to the wilderness system. As development or access progresses into the Unit, possible areas for wilderness designation will be reduced. Congress recently added 31,600 acres to the existing Kalmiopsis Wilderness in this Unit.

#### O. Wildlife

This alternative will continue to provide essential habitat for black-tailed deer, Roosevelt elk, and other game species.

Population levels of all game species will at least be maintained, or tend to increase, as undeveloped areas are accessed for timber harvest.

Alternative C will adequately protect any known specimen of threatened and endangered species on this Unit. Some of the land management allocations (38 percent), Visual Management Areas, and Streamside Management Zones all provide protection to wildlife because of either a modified harvest rate or a near natural condition. The Snag Management guidelines will help preserve habitat by ensuring that adequate numbers of snags useful to wildlife are retained, even in fully developed areas.



Alternative D: Alternative D is a commodity-amenity blend. It provides a mix that considers fisheries, recreation, research natural area, botanical areas, wild and scenic rivers, and resource management areas. Table V D-1 shows potential and output levels generated by this alternative.

Table V D-1. Estimated Output Potentials Under Alternative D. 1/

Output	Potential Output Levels	Present Output
Current Timber Harvest (MBF)	55,000	58,000
Developed Site Recreation (Visitor-Days)	79,100	59,500
Dispersed (Road-Related) Recreation (Visitor-Days)	394,800	251,800
Dispersed (Trail-Related) Recreation (Visitor-Days)	114,900	11,000
Wilderness Recreation (Visitor-Days)	29,100	7,800
Wilderness (Acres)	88,675	88,675
Sediment (Cubic Yards)	134,500	140,200
Water (Acre-Feet)	2,807,500	2,809,000
Fuel Load (Tons/Acre)	67,400	63,300
Anadromous Fish (Fish)	62,400	65,500
Range (AUM)	3,000	1,350
Game Indicator Species (Black-tailed Deer)	4,000	4,100
Old-Growth-Dependent Indicator Species (Pileated Woodpecker Pairs)	540	680
Cavity-Nester Indicator Species (Yellow-bellied Sapsucker Pairs)	20,520	27,300
Roads (Miles)	1,200	790

1/ Estimates are approximate.

The environmental effects or potential environmental effects which would result from Alternative D are summarized below:

A. Air Quality

This alternative will have little effect on the air quality as compared with existing levels. Timber harvest, road construction, and slash burning will continue at or near present rates and will have only a temporary, localized effect on air quality. Smoke management guides will continue to be used to assure satisfactory air quality.

B. Fire

Fuel loading should not change to any great extent from present levels. Slash disposal and silvicultural techniques will be applied to minimize the slash hazard in timber harvest areas, with full consideration for soil and watershed values.



Fire suppression efforts will be aided by increased access; however this tends to increase risk of ignition because more people use the area. The potential for large fires would be reduced.

#### C. Fisheries, Soil, and Water

Generally, the sediment production in this Unit will remain about the same as the present levels. A temporary sediment increase may result immediately following a development activity. Accelerated sediment production could actually be decreased somewhat by modification of the fuel management procedures. Vegetation and litter cover reduce the detaching and transporting power of water, while increasing the structure and stability of soil.

Water temperatures may tend to increase slightly after removal (timber harvest, construction) of shading vegetation; however, harvest units are usually well dispersed over a drainage, so the effect will not be great. Silvicultural techniques and planting or leaving hardwoods along streams will provide enough shade to alleviate most temperature problems.

Water quantity will be essentially unchanged by this alternative; however, activities in an area adjacent to streams, such as clearcutting, can cause temporary fluctuations in flows. Under sustained yield timber management total watershed flow changes are usually undetectable.

Habitat improvement, such as improving or creating spawning beds, stabilizing natural slides, or removing debris jams, will become more feasible with the increased access possible under this alternative.

The potential for anadromous fish production over a 100-year rotation may decline to approximately 95% of the current level of fish production. Current assessment of the anadromous salmonid populations indicate that all streams on this Unit are either increasing or are stable.

#### D. Future Options

If this alternative is implemented, after some years land management options for most of the currently designated roadless area acreage will be substantially reduced. At that point, options for wilderness, research natural area, administrative roadless, and other non-development allocations will be lost; however, most land management options involving some degree of development will be maintained, perhaps indefinitely.

Short-term options are reduced for use of the areas under allocations essentially maintaining natural conditions.

Areas allocated for development under this alternative will be gradually developed over a period of one or more decades. Allocated areas which essentially maintain natural conditions can be reallocated to development allocations, if needs in the future so warrant. Both of these tend to extend future options.



#### E. Historic and Archeologic

This alternative will not have any significant effects on historical or archeological sites. The State Historic Preservation Officer has reviewed the material documenting the "Determination of No Effect" for this Planning Unit and concurs with this determination for the project (see Appendix).

The project planning process for any ground-disturbing activities will include an on-the-ground inventory of cultural resource sites, districts, object, and structures, as required by Executive Order 11593. Compliance with 36CFR800 procedures will be accomplished in the project environmental assessment.

This alternative complies with the American Indian Religious Freedom Act of 1978 and the NFMA of 1976. A literature search which was recently completed, revealed very little information about the religious practices and the traditional uses of the land by the Indians living in this area. The Forest also contacted the Native American Research Center in Coos Bay on March 2, 1979, but there was no reply. The only known religious sites are located on several mountaintops. These areas were used for religious rituals and are in no danger of being destroyed.

#### F. Minerals

This alternative should not affect the availability of important minerals. Most of the known valuable mineral deposits or mineral-bearing rock are open to entry and are accessible for exploration. The Kalmiopsis Wilderness will be closed to prospecting and exploration after December 31, 1983. Management Area 9 will be recommended for mineral withdrawal. Mining operations will be operated under existing regulations.

#### G. Noise

Under this alternative additional timber harvest and road construction activities resulting from future intensive timber management practices may contribute to a slight increase in noise pollution, but it should not significantly differ from the present conditions.

#### H. Recreation

The potential opportunities for all dispersed recreation should increase slowly. Continued road construction at the present rate will make accessible more miles of road for dispersed types of recreation, such as driving for pleasure, hunting, and fishing.

The quality of the opportunities for trail hikers will decline somewhat as contacts with developments and other symbols of civilization will increase over the present level.

#### I. Roadless Area

Part of Roadless Area 6701 (Siskiyou) is recommended for wilderness allocation. Part of Roadless Area 6180 (Windy Valley) is included in Management Area 2. Roadless Area 6707 (North Fork Smith) is placed in further planning. Management Area 1 contains all the other inventoried roadless areas.



## J. Socio-Economics

This alternative will marginally reduce the existing jobs either directly or indirectly dependent on the resources of this Unit. In future years, jobs could increase with intensive management, better utilization, genetically improved planting stock, and/or fertilization. Although there appear to be a substantial number of fisheries, recreation, and other-related jobs, they account for a relatively small percentage of the timber-related jobs. Available information makes it difficult, if not impossible, to make a quantified estimate.

This alternative should continue to maintain a stable output of resources which will ensure stable revenue payments to the local governments in lieu of taxes.

No significant effects are expected on civil rights, minority groups, low income persons, or rural poverty from this alternative.

## K. Timber

The annual harvest level under this alternative will be about 95 percent of the current level. With intensive management practices, this output could be increased.

Preliminary estimates indicate that the potential output level is considerably higher than the actual output level. The basic calculation of the present allowable cut, using existing volumes and growth figures (Hanzlik Formula), is responsible for the low actual output. Many potentially productive areas on the westside of the Unit have either low or nonexistent conifer volumes; therefore, they do not contribute any volume to the annual harvest figure. Future timber yields from these areas are dependent on an investment for site preparation or a conversion project.

A substantial acreage of old growth will be maintained in a natural condition in wilderness, botanical, research natural, and dispersed recreation areas. These land allocations will total approximately 21 percent of the Unit under this alternative. This does not include other areas that require a modified cut prescription, because they are designated as Visual Management areas or streamside management zones.

Other areas in the special or reduced harvest category are Management Areas 6, 7, and 4. The remaining old-growth stands will continue to be converted to managed second-growth stands at about the same rate as at present.

## L. Vegetation

Relative to the present situation, effects on vegetation will remain essentially unchanged. Ecological change will continue in areas to be left in a natural state. Areas under development will be returned to an earlier successional stage before ecological change relentlessly continues.

Management under this alternative would maintain populations of all existing floral species; however, there will tend to be less floral diversity in intensively managed second-growth stands. The percentage of commercially



valuable species, such as Douglas-fir, will tend to be substantially higher than in existing old-growth forests. This generally reflects the present situation and, therefore, represents no change in trend.

M. Visual

This alternative will increase over the current rate the amount of man-dominated landscape within the Unit; however, approximately 23 percent of the Unit will be in a land management allocation which will protect the area in a near natural condition. The Streamside and Visual Management Plan will protect additional areas of old growth.

In addition to providing visual benefits, Visual Resource Management constraints tend to increase development costs and decrease the possibility of approaching full biologic potential for timber production.

N. Wilderness

This alternative will add approximately 4,950 acres to the wilderness system. As development or access progresses into the Unit, possible areas for wilderness designation will be reduced. Congress recently added 31,600 acres to the existing Kalmiopsis Wilderness in this Unit.

O. Wildlife

This alternative will continue to provide essential habitat for black-tailed deer, Roosevelt elk, and other game species.

Population levels of all game species will at least be maintained, or tend to increase, as undeveloped areas are accessed for timber harvest.

Alternative D will adequately protect any known specimen of threatened and endangered species on this Unit. Some of the land management allocations (23 percent), Visual Management Areas, and Streamside Management Zones all provide protection to wildlife because of either a modified harvest rate or a near natural condition. The Snag Management guidelines will help preserve habitat by ensuring that adequate numbers of snags useful to wildlife are retained, even in fully developed areas.



Alternative E: Alternative E is a commodity oriented alternative which emphasizes multiple-use opportunities by reducing visual constraints. Table V E-1 shows potential and present output levels generated by this alternative.

Table V E-1. Estimated Output Potentials Under Alternative E. 1/

Output	Potential Output Levels	Present Output
Current Timber Harvest (MBF)	61,500	58,000
Developed Site Recreation (Visitor-Days)	79,600	59,500
Dispersed (Road-Related) Recreation (Visitor-Days)	410,800	251,800
Dispersed (Trail-Related) Recreation (Visitor-Days)	114,900	11,000
Wilderness Recreation (Visitor-Days)	29,100	7,800
Wilderness (Acres)	88,675	88,675
Sediment (Cubic Yards)	139,300	140,200
Water (Acre-Feet)	2,808,500	2,809,000
Fuel Load (Tons/Acre)	66,400	66,400
Anadromous Fish (Fish)	61,200	65,500
Range (AUM)	3,360	1,350
Game Indicator Species (Black-tailed Deer)	4,200	4,100
Old-Growth-Dependent Indicator Species (Pileated Woodpecker Pairs)	510	680
Cavity-Nester Indicator Species (Yellow-bellied Sapsucker Pairs)	19,855	27,300
Roads (Miles)	1,230	790

1/ Estimates are approximate.

The environmental effects or potential environmental effects which would result from Alternative E are summarized below:

A. Air Quality

This alternative will have little effect on the air quality as compared with existing levels. Timber harvest, road construction, and slash burning will continue at or near present rates and will have only a temporary, localized effect on air quality. Smoke management guides will continue to be used to assure satisfactory air quality.

B. Fire

Fuel loading will tend to be somewhat lower than the current level because of increased management activities, such as timber harvest, slash treatment, and road building.

Fire suppression efforts will be aided by increased access; however, this tends to increase risk of ignition because more people use the area. The potential for large fires would be reduced.



C. Fisheries, Soil, and Water

Anadromous fish production would decrease slightly from the current level. Sediment production and water yields will increase above current levels. Water temperatures and water quality tend to increase following some management activities (timber harvest, road construction), however, these fluctuations are temporary.

Although this alternative does not contain Management Area 6 allocation, the existing Streamside and Soil Management Policies afford adequate protection for the important anadromous fish producing streams.

D. Future Options

Future land management options would be reduced in the unroaded areas; however, prospects of rapid development in the near future would be very limited and uncertain because of the characteristics of the area.

E. Historic and Archeologic

This alternative will not have any significant effects on historical or archeological sites. The State Historic Preservation Officer has reviewed the material documenting the "Determination of No Effect" for this Planning Unit and concurs with this determination for the project (see Appendix).

The project planning process for any ground-disturbing activities will include an on-the-ground inventory of cultural resource sites, districts, object, and structures, as required by Executive Order 11593. Compliance with 36CFR800 procedures will be accomplished in the project environmental assessment.

This alternative complies with the American Indian Religious Freedom Act of 1978 and the NFMA of 1976. A literature search which was recently completed, revealed very little information about the religious practices and the traditional uses of the land by the Indians living in this area. The Forest also contacted the Native American Research Center in Coos Bay on March 2, 1979, but there was no reply. The only known religious sites are located on several mountaintops. These areas were used for religious rituals and are in no danger of being destroyed.

F. Minerals

Most of the mineral deposits would be available for mining in this alternative. They are open to entry and accessible for exploration. An exception is the Kalmiopsis Wilderness, which will be closed to prospecting and exploration after December 31, 1983. Management Area 9 will be recommended for mineral withdrawal. Mining operations will be operated under existing regulations.

G. Noise

Noise pollution will be increased slightly by this alternative because of the increased timber harvest, road construction, and other contributing management activities.



#### H. Recreation

Developed site and road related dispersed recreation (hunting, fishing, and driving for pleasure) would increase under this alternative. Management activities which develop the transportation system for access are the primary reason for the increase.

The quality for trail hiking opportunities will decline somewhat as development and other symbols of civilization are contacted.

#### I. Roadless Area

All roadless areas, except part of 6701 and 6707, are allocated to non-wilderness uses.

#### J. Socio-Economics

This alternative will maintain the existing jobs either directly or indirectly dependent on the resources of this Unit. In future years, jobs could increase with intensive management, better utilization, genetically improved planting stock, and/or fertilization. Although there appear to be a substantial number of fisheries, recreation, and other-related jobs, they account for a relatively small percentage of the timber-related jobs. Available information makes it difficult, if not impossible, to make a quantified estimate.

#### K. Timber

The annual harvest level would increase approximately six percent. Intensive management practices will substantially increase the timber production in this Unit.

Preliminary estimates indicate that the potential output level could be considerably higher than the present output level. The basic calculation of the present allowable cut, using existing volumes and growth figures (Hanzlik Formula), is responsible for the low present output. Many potentially productive areas on the westside of the Unit have either low or nonexistent conifer volumes; therefore, they do not contribute any volume to the programmed annual harvest figure. Future timber yields from these areas are dependent on an investment for site preparation or a conversion project.

#### L. Vegetation

Relative to the present situation, effects on vegetation will remain essentially unchanged. Ecological change will continue in areas to be left in a natural state. Areas under development will be returned to an earlier successional stage before ecological change relentlessly continues.

Management under this alternative would maintain populations of all existing floral species; however, there will tend to be less floral diversity in intensively managed second-growth stands. The percentage of commercially valuable species, such as Douglas-fir, will tend to be substantially higher than in existing old-growth forests. This generally reflects the present situation and, therefore, represents no change in trend.



M. Visual

This alternative will increase over the current rate, the amount of man-dominated landscape within the Unit. The Streamside and Visual Management Plan will protect additional areas of old growth.

In addition to providing visual benefits, Visual Resource Management constraints tend to increase development costs and decrease the possibility of approaching full biologic potential for timber production.

N. Wilderness

This alternative will add approximately 4,950 acres to the wilderness system. As development or access progresses into the Unit, possible areas for wilderness designation will be reduced. Congress recently added 31,600 acres to the existing Kalmiopsis Wilderness in this Unit.

O. Wildlife

This alternative will continue to provide essential habitat for black-tailed deer, Roosevelt elk, and other game species.

Population levels of all game species will tend to increase as undeveloped areas are accessed for timber harvest.

Alternative A will adequately protect any known specimen of threatened and endangered species on this Unit. Some of the land management allocations (21 percent), Visual Management Areas, and Streamside Management Zones all provide protection to wildlife because of either a modified harvest rate or a near natural condition. The Snag Management guidelines will help preserve habitat by ensuring that adequate numbers of snags useful to wildlife are retained, even in fully developed areas.







Relationship Between Local Short-Term Uses of Man's  
Environment and Maintenance and Enhancement  
of Long-Term Productivity

Long-term productivity means the continued ability of land to produce commodity and amenity values for future generations. If soil productivity is altered beyond a short-term recovery period, the capability of long-term productivity is not protected.

Effects of short-term uses on the various resources were discussed for the five alternatives. The effects of these on the maintenance of long-term productivity are expected to be as follows.

The amenity values associated with roadless areas will decrease somewhat over the long-term under Alternatives A, C, D, and E. Change will occur in the roadless areas as they are gradually developed over a period of years. All alternatives will have some areas that will remain in a primitive condition, and the Forest visitor can expect the maximum opportunity for experiencing isolation or solitude on both the short and long-term uses.

Some of the existing roadless areas will eventually be accessed and harvested, making them available for road-related dispersed recreation (driving for pleasure, hunting, etc.). Timber management activities will produce a diversified vegetative type throughout the rotation cycle. The amount of timber harvest will not change much over the short-term, however, the long-term productivity will increase substantially as the old-growth stands are eliminated and as intensive management practices are applied on the higher site land. Domestic livestock grazing should increase over the Unit as timber is harvested and grass is seeded for erosion control purposes. All of the alternatives will provide various levels of sustained non-declining yield of timber on those acres allocated to timber management.

The productivity of all anadromous fish streams on this Unit should not be affected to any great extent. Temporary increases in sediment levels and water temperature may occur but acceptable levels of water quality will remain fairly constant over the long-term. Soil movement will continue at approximately the same level as present over the long-term, however, temporary fluxuations will continue over a short interval until revegetation is completed. The Siskiyou Streamside Management Policy and the Siskiyou Soil Management Policy dictate the methods, or techniques, required to ensure that water quality standards are met.

Alternatives A, C, D, and E should not have any effect on the accessibility or the availability of important mineral bearing rock or valuable ore deposits in this Unit unless they are located within the Kalmiopsis Wilderness, where they will be closed to prospecting and exploration after December 31, 1983.

In all alternatives, some existing wildlife species habitat will be degraded somewhat in some areas for short periods of time, but in no case will activities displace any species from the Unit. Wildlife species, including species dependent on old-growth forest and species requiring tree cavities for nesting, will be adversely affected by Alternatives A, C, D, and E. Population levels generally will reflect these changes, and lower levels will be sustained.

Road construction to facilitate principal activities such as timber harvesting, may reduce the productivity of the land occupied by these roads to produce vegetation.



## Irreversible and Irretrievable Commitment of Resource

Implementation of Alternatives A, C, D, and E would tend to commit most of the inventoried and additional roadless areas to some degree of roadbuilding and timber harvest, which would preclude future consideration for wilderness designation. Although this action may not be totally irreversible, it could interrupt certain natural ecological processes with a possible loss of a viable gene pool for some flora and fauna species in those areas. Most of these gene pools will be preserved in the natural or near natural land management allocations, or, if any area of scientific or special value is discovered, they will be administratively classified as a SPECIAL INTEREST AREA for protection and for public use, study, and enjoyment.

The allocation of the roadless areas to uses other than wilderness would constitute an irreversible loss. Although Congress would always retain the power to reallocate these areas as wilderness at some later date, the development of these areas through timber harvesting, road construction, and other intensive management activities would change the wilderness character for the foreseeable future.

Discovery and use of mineral resources and road rock would result in an irreversible commitment of resources.

Energy expended in carrying out management activities would be an essentially irreversible loss.

Soil losses are irreversible. Even under the most carefully controlled conditions, management activities will result in some soil disturbance. Once this soil is eroded by wind or water, it is almost impossible to restore. Rock pits developed on road building activities are considered irreversible commitments to the land. Surfacing removed and placed on roads would not be replaced.

The destruction or damage of historic or cultural resources would be an irreversible loss. All alternatives specifically provide for protecting such resources. However, some of these resources may not have been discovered yet. If management activities were to disturb them before their significance was known, the damage probably could not be reversed. The possibility for this to happen is greatest in alternatives that provide for the highest level of timber production and road construction.

All alternatives require constraints that irretrievably affect potential timber, water, and forage yields. In other words, constraints required for the protection of other resources such as wildlife habitat, water quality, recreation, and visual values, prevent the full attainment of wood fiber, water yield, and forage production. Although these constraints could be removed at some time in the future, the interim loss is irretrievable.

Wildlife species dependent on old-growth forest habitat will continue to decline over a long period of time as the old-growth timber is harvested. Gradual harvest of the timber, Visual Management objectives, Streamside Corridors, and many of the Land Management Allocations with their natural characteristics should enable the species to perpetuate themselves without significant population losses; however, the loss of old-growth timber habitat for some forms of wildlife is irretrievable, and it would take 200 or more years to replace old growth once it is cut.



Intensive management activities could result in an irretrievable loss of the natural character of the landscape. It would take several decades to restore the natural appearance once it was changed.

Activities in slash disposal, timber harvest, reforestation, and recreation site improvement will result in an irretrievable loss of habitat for some species of wildlife.

Loss of economic benefits, such as jobs and income, are irretrievably lost under land management allocations which forego full timber production.

#### Summary of Probable Adverse Environmental Effects Which Cannot be Avoided

Some adverse environmental effects which cannot be avoided may result from the alternatives in this Statement. They are listed as follows:

Air pollution will be caused by burning logging residues and road clearing slash. To reduce adverse environmental effects, smoke management guidelines are used for all burning projects. Noise, dust, smoke, and emissions from management activities will pollute the air and environment with all alternatives. Alternative B will have less impact on the Forest environment because of fewer disturbing activities.

Increased development of the roadless areas in Alternatives A, C, D, and E increases the risk of wildfire because more people use the area; however, better timber utilization, increased markets, and more efficient logging systems will decrease the fuel loading process to some extent. Suppression action would be more effective.

Management activities (logging, road construction) will increase the sediment levels in the Unit. Generally this is only a temporary situation that can be alleviated somewhat by adequate drainage and revegetating (seeding and mulching) cut and fill slopes on road construction projects. Sophisticated logging equipment (skyline and helicopter) is capable of harvesting timber with very little ground disturbances. Periods of heavy runoff could increase the sediment; however, it is not expected to exceed the water quality standards of Oregon's Department of Environmental Quality. Water temperatures may temporarily increase in some areas as mature sawtimber is harvested.

Over a long period of time, the potential production of anadromous fish could decline to approximately 95 percent of the current level. The potential for sedimentation compacting or covering some spawning gravels is increased with logging and grazing activities.

The harvesting of timber increases the man-dominated character of the Unit. On timber producing allocations, much of the aesthetic value of old-growth timber will be lost. Short-term visual impairment will occur prior to slash disposal and revegetation efforts following logging.

Timber harvesting will reduce habitat for some wildlife species dependent upon mature trees; however, a substantial amount of area will be left in a natural or nearly natural condition (24 percent). Viable population levels will be maintained in all alternatives. Logging and thinning slash may temporarily hinder the free movement of big game.



Alternative B will marginally increase long-term management options. Alternatives A, C, D, and E will reduce both short-term and long-term land management allocations and management options. Long-term options will steadily be reduced over one or more decades as development of the roadless areas progresses. Such an incremental progression tends to preserve future options for relatively long periods of time.

Although noise levels should not change from the present condition, increased access adjacent to the roadless areas could be a factor affecting a person's feeling of isolation and solitude.

Some soil degradation will occur through management activities that cause compaction, displace or destroy protecting surface biomass and litter, or disturb the soil itself. Domestic grazing, timber harvest, road construction, concentrated camping or trail use, site preparation, etc., all have the potential to cause soil damage.

From an economic standpoint, restricting full timber yield on commercial forest land reduces employment in timber-related industries and lowers income to county budgets and the federal treasury.



## VI. EVALUATION OF ALTERNATIVES

Land management decision-making involves the analysis and evaluation of a startling number of variables. These include economic, environmental, physical, and other technical factors and public input. The latter has been examined in the "Consultation With Others" section. The matrix which follows provides comparative data for most of the other important variables.

Estimates are based on the best available data obtained from on-the-ground study and from other sources. The most important aspect about all of these estimates is their relative values. Numerous factors can vary the absolute values.

The importance of individual variables is itself variable. Some variables may be key variables for certain reasons. Also, it should be noted that the importance of a given variable will vary among different citizens. Each reader should analyze and evaluate the data in this matrix along with the rest of the document. This will aid the reader in better defining the tradeoffs which must be known for sound decision-making. A comparison of land management alternatives based on comparative data follows:

Table VI - 1. Alternative Evaluation Criteria Matrix.

Evaluation Criteria Number 1/	Alternatives				
	% of Support				
	A	B	C	D	E
1	97	99	98	98	90
2	95	99	98	97	92
3	100	80	96	99	106
4	85	99	98	97	75
5	87	90	95	100	85
6	95	100	98	97	94
7	100	100	100	100	100
8	100	100	100	100	98
9	100	100	100	100	100
10	100	100	100	100	100
11	100	100	100	100	100
12	80	96	95	94	75

1/ Refer to Evaluation Criteria section for listing of Evaluation Criteria.



Table VI - 2. Statewide Planning Goals.

Statewide Planning Goals: 1/ 2/	DEGREE OF SUPPORT FOR GOALS PROVIDED BY EACH ALTERNATIVE 3/					
	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	
Citizen Involvement	S	S	S	S	S	S
Land Management Planning	S	S	S	S	S	S
Forest Lands	S	S	S	S	S	S
Open Spaces, Scenic and Historic Areas and Natural Resources	S	S	S	S	W	
Air, Water and Land Resources Quality	S	S	S	S	S	S
Areas Subject to Natural Disasters and Hazards	S	S	S	S	S	S
Recreational Needs	S	S	S	S	S	S
Economy of the State	S	N	S	S	S	S
Transportation	S	S	S	S	S	S
Energy Conservation	S	S	S	S	W	

1/ Goals are shown in Appendix.

2/ The subjects of the following goals are not present in or are not applicable to the Chetco-Grayback Planning Unit: Agricultural Lands; Housing; Public Facilities and Services; Urbanization; Willamette River Greenway; Estuarine Resources; Coastal Shorelands; Beaches and Dunes; Ocean Resources.

3/ Estimated degree of support provided each goal by each alternative limited to the extent each goal can apply to National Forest lands in this Planning Unit.

S Generally supportive

W Weak or uncertain support

N Generally non-supportive



Table VI - 3. Alternative Potentials by Output Levels.

Physical Output:	Present Situation	Alternative Potential Output Levels for Calendar Year 2020				
	Actual	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
Current Timber Harvest (MBF)	58,000	58,000	52,100	53,800	55,000	61,500
Timber Potential (MBF)	123,000	120,600	83,800	114,800	117,100	120,600
Developed Site Recreation (Visitor-Days)	59,500	59,500	77,100	77,200	79,100	79,600
Dispersed (Road-Related) Recreation (Visitor-Days)	251,800	251,800	373,600	366,100	394,800	410,800
Dispersed (Trail-Related) Recreation (Visitor-Days)	11,000	114,900	115,000	115,200	114,900	114,900
Wilderness Recreation (Visitor-Days)	7,800	29,100	29,100	29,100	29,100	29,100
Wilderness Acreage (Acres)	88,675	88,675	88,675	88,675	88,675	88,675
Sediment (Cubic Yards)	139,100	139,100	134,700	134,600	134,500	139,300
Water (Acre - Feet)	2,808,200	2,808,200	2,807,300	2,807,400	2,807,500	2,808,500
Fuel Load (Tons/Acre)	66,900	66,900	68,300	67,800	67,400	66,400
Anadromous Fish (Fish Catch)	65,500	61,600	63,900	62,600	62,400	61,200
Range (Animal Unit Month)	1,350	2,830	2,510	2,960	3,000	3,360
Game Indicator Species (Black-tailed Deer)	4,100	4,100	3,900	3,400	4,000	4,200
Old Growth-Dependent Species (Pileated Woodpecker Pairs)	660	514	577	568	540	510
Cavity-Nester Indicator Species (Yellow-bellied Sapsucker Pairs)	27,300	19,945	21,207	21,056	20,520	19,858
Roads (Miles)	790	1,110	1,070	1,120	1,200	1,230



Table VI - 4. Land Allocations by Alternatives.

Land Allocations	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
Management Area 1 (Coordinated Resource)	363,503	304,759	281,992	347,313	363,503
Management Area 2 (Dispersed Recreation)	0	52,926	75,693	10,372	0
Management Area 4 (Scenic River)	4,712	4,712	4,712	4,712	4,712
Management Area 5 (Wild River)	104	104	104	104	104
Management Area 6 (Fisheries/Watershed)	0	4,238	4,238	4,238	0
Management Area 7 (Recreation/Fisheries)	0	1,580	1,580	1,580	0
Management Area 9 (Research Natural)	1,608	1,608	1,608	1,608	1,608
Management Area 10 (Botanical)	210	210	210	210	210
Management Area 11 (Existing Wilderness)	88,675	88,675	88,675	88,675	88,675
Management Area 11 (Proposed Wilderness)	4,950	4,950	4,950	4,950	4,950
Management Area 15 (Further Planning)	950	950	950	950	950
TOTAL Planning Unit Acres	464,712	464,712	464,712	464,712	464,712



Table VI - 5. Estimate of Jobs Supported by Alternative.

Apparent Man-Years/MMBF from County Consumption (1972).

	<u>Curry</u>	<u>Josephine</u>	<u>Unit Average (50% each)</u>
L&WP Employees	1,500.00	2,360.00	3,860.00
MMBF Consumed	202.9	324.7	527.6
Man-Years/MMFB	7.39	7.27	7.32

Assume consumption in Del Norte County, California is relatively insignificant and that consumption is split 50% each for Curry and Josephine. Also, assume 58 million of veneer layed up in addition to 242.7 million consumed otherwise for Josephine County (total = 300.7 million).

L&amp;WP Industry Employment Multiplier

Curry	2.1
Josephine	3.1
Average	2.6

Employment Related to Timber Harvest in Unit by Alternative

Table VI - 5-1. Assume Existing Timber Management.

Alternative	Programmed Harvest (MMBF)	Direct Jobs @ 7.3/MMBF	Indirect Jobs @ 2.6 Mult (1.6 x Direct)	Total Jobs	Change over Present	
					Total Jobs	Percent
A	58	423	677	1,100	0	0
B	52.1	380	608	988	(-) 112	(-) 10
C	53.8	393	628	1,021	(-) 79	(-) 7
D	55	401	642	1,043	(-) 56	(-) 5
E	61.5	449	718	1,167	(+) 67	(+) 6

Table VI - 5-2. Assume Intensive Timber Management (10% higher).

Alternative	Programmed Harvest (MMBF)	Direct Jobs @ 7.3/MMBF	Indirect Jobs @ 2.6 Mult (1.6 x Direct)	Total Jobs	Change over Present	
					Total Jobs	Percent
A	64	467	748	1,215	115	10
B	57.3	418	669	1,087	(-) 13	(-) 1
C	59.2	432	691	1,123	23	2
D	60	438	700	1,138	38	4
E	67.7	494	790	1,284	184	17

Note: Wall projected about a 1% a year decrease in employment due to increasing labor productivity (32% decrease over base levels between 1970 and 2000).

Wall, Brian R. 1973. Employment Implications of Projected Timber Output in the Douglas-fir Region, 1970-2000. Pacific Northwest Forest and Range Experiment Station. Portland, OR.



Table VI - 6. Cost/Benefit Calculated Harvest Levels for the Chetco-Grayback Planning Unit

Alternative	Cost/Benefit Ratio 10%		Annual Equivalent	
	Benefit Ratio	Net Present Worth 1/	Value of NPW 1/	Years Planned
A	2.9786	121,790	12,284	50
B	3.2055	129,362	13,047	50
C	3.1782	131,364	13,249	50
D	3.1589	133,508	13,465	50
E	3.0752	142,219	14,344	50

Alternative	Net Present Worth		Accumulated 5 Year Cost 1/
	10%	IRR	
A	121,790	101	28,220
B	129,362	101	26,890
C	131,364	101	27,649
D	133,508	101	28,351
E	142,219	101	31,419

1/ Values are in \$1,000.

Based on the following data, the cost/benefit and net present worth for each alternative were calculated using the INVEST III computer program:

1. Benefit value of:

Recreation equaled:

\$3.00 RVD for developed site

\$3.15 RVD for road related recreation

\$12.00 RVD for trail related recreation

\$15.00 RVD for wilderness recreation

Timber at \$240.00/MBF.

Range or grazing at \$8.00/AUM.

Fisheries at \$51/Fish.

2. Cost value of:

Recreation at \$1.00/RVD.

Grazing at \$7.67/AUM.

3. From Linear Programming Model cost value is:

Logging - Approximately \$65/MBF

Road construction - Approximately \$13/MBF

Silviculture - Approximately \$5/MBF

Fire - Approximately \$10/MBF



Non-numerical symbols used in the following matrix are:

Trend

+++	Highly favorable	-	Slightly unfavorable
++	Moderately favorable	--	Moderately unfavorable
+	Slightly favorable	---	Highly unfavorable
0	Largely unchanged		

Table VI - 7. Environmental Effects Matrix.

Other Variables:	Present Situation					
	Actual	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
Air Quality	Reference Base	0	+	0	0	0
Risk of Fire Ignition	Ref. Base	-	0	-	-	-
Accessibility for Fire Suppression	Ref. Base	+	--	+	+	++
Future Options						
	- Long-term	Ref. Base	0	-	-	---
- Short-term	Ref. Base	+	---	+	++	++
Historic and Archeologic	Ref. Base	0	0	0	0	0
Mineral Access	Ref. Base	+	0	+	+	++
Noise	Ref. Base	--	0	-	--	---
Recreation Quality (Road-Related)	Ref. Base	0	+	0	0	-
Recreation Quality (Trail-Related)	Ref. Base	-	0	--	--	---
Recreation Quality (Kalmiopsis Wilderness and Wilderness Recommendation Area)	Ref. Base	0	+	++	0	0
Water Quality	Ref. Base	0	+	0	0	-
Stream Flows:						
-Minimums	Ref. Base	0	-	0	0	+
-Maximums	Ref. Base	0	+	0	0	-



(cont'd)

Other Variables:	Present Situation		Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
	Actual						
Maintenance of Established Landscape Character	Ref. Base	--	0	--	---	---	
Preservatrion of Substantially Unaltered Environment	Ref. Base	--	0	--	---	---	
Protection of Habitat for Threatened or Endangered Flora & Fauna	Ref. Base	--	+	--	---	---	



## VII. IDENTIFICATION OF THE PREFERRED ALTERNATIVE

After careful analysis and evaluation of the public input, existing resources, land capabilities, environmental effects and social and economic values the Forest Service selected Alternative D as the Preferred Alternative.

Basically, this alternative meets the evaluation criteria described in Section III. These criteria provide the necessary tool for evaluating and for developing the Preferred Alternative rationale. It would minimize the opportunity costs (job losses, commodity outputs, various socio-economic effects) while maximizing the total net public benefits. The Preferred Alternative provides a diversity of opportunities and outputs for most user groups.

The rationale discussion is as follows:

The Alternatives A, C, and D are generally supportive of each of the ten Statewide Planning Goals which are relevant to this Planning Unit. These goals, developed by the State of Oregon Land Conservation and Development Commission are: Citizen Involvement; Land Use Planning; Forest Lands; Open Spaces, Scenic, and Historic Areas and Natural Resources; Air, Water and Land Resources Quality; Areas subject to Natural Disasters and Hazards; Recreational Needs; Economy of the State; Transportation; and Energy Conservation.

Alternative B is generally supportive of eight Statewide Planning Goals, generally non-supportive of one, and provides only weak or uncertain support to another. The "Economy of the State" goal is generally not supported by this alternative. Under Alternative B, a large reduction in both existing and potential economic activity would occur. In addition, little new economic activity or increased diversification would be produced. The "Forest Lands" goal is provided only weak or uncertain support from Alternative B, in that large acreages would be withdrawn from timber harvest and some other forest management.

Relevant to this Planning Unit, Alternative E is generally supportive of eight and provides only weak or uncertain support of two others. The "Open spaces, Scenic, and Historic Areas and Natural Resources" goal is given only weak or uncertain support by this "maximum-commodity" alternative. Although Wild and Scenic Rivers, the Kalmiopsis Wilderness, Research Natural Areas, and Botanical Areas would be fully protected, some influential adjacent areas would be fully developed. The "Energy Conservation" goal is weakly supported since development under this alternative would tend to require greater energy inputs per unit of output than other alternatives.

Alternatives A, C, D, and E contribute toward National RPA Goal A in land and water, and Goal B in recreation, wildlife and fish, range, timber, and human and community development.



Alternative D satisfies the evaluation criteria in the following manner.

1. Protect and maintain the existing soil resource.
  - a. Major effects on soils associated with road construction and timber harvesting are concentrated in Management Area 1. All such activities will be carried out under constraints of the Siskiyou Soil Management Policy (see Appendix) which requires maintenance of high standard of water quality. Through an on-the-ground inspection of sales by resource Forest specialists, such as the Soil Scientist, protection of the soil is assured.
  - b. Implementation of Executive Order 11988 and Executive Order 11990 is further protection of the soil resources with management centered on the floodplains and wetlands.
  - c. Alternative D will continue the present practice of using sophisticated logging systems to protect existing soil resources by reducing vegetative and soil disturbances.
2. Protect and improve water quality for the fisheries resource and for other uses.
  - a. Relative to the present, total sediment production in the Unit will remain unchanged.
  - b. Management activities will be less concentrated than at present and will disperse effects of sediment production and water quality over a larger area. Results will be to increase sediments in the roadless areas and decrease sediments in the areas already roaded. However, management activities will be designed to minimize potential sedimentation.
  - c. Fisheries resources are also protected through the Siskiyou Streamside Management Policy (see Appendix) and with the establishment of Management Area 6 (fisheries/ watershed areas). This will require management techniques that will ensure that sediment loads and adverse effects on anadromous fish remain at an acceptable level.
  - d. Through the required use of aerial systems on areas with sensitive soils, ground disturbance will be reduced. Ridge top roads will reduce critical soil disturbances along with end-hauling of waste materials. By the reduction of ground disturbance, water quality should be maintained and possible effects on anadromous fish are minimized.
3. Maintain relatively high levels of timber outputs and mineral availability.
  - a. Alternative D maintains 95 percent of the current harvest level. Most of the timber management activities will occur in Management Area 1.
  - b. Potential increases are possible under intensive management practices.
  - c. All mineral activities are operated under existing laws and regulations. In the event of formal allocation, the lands within the Proposed Research Natural Areas will be withdrawn from mineral entry. All mineral activities will be conducted in a manner that is in harmony with the management strategy of the Management Area in which it occurs.



- d. Alternative D essentially maintains the existing economic situation.
- 4. Protect visual and other amenity qualities of the Unit as a whole from substantial long-term degradation.
  - a. Visual and amenity qualities along the Illinois River are protected by the study recommendation to include the river in the National Wild and Scenic River System.
  - b. There is little change from the present trend, where National, Regional, and Forest constraints protect the land from long-term degradation.
- 5. Protect and increase the recreation potential for all types of outdoor recreation.
  - a. Potential opportunities for developed site recreation and for road-related forms of dispersed recreation will be maintained or slightly increased above existing levels.
- 6. Protect and enhance fish and wildlife habitat.
  - a. Anadromous fisheries will decline marginally over a long period of time to reach an estimated level no less than 95 percent of that at present.
  - b. Habitat and population of black-tailed deer, elk, and most other game species will improve under Alternative D.
  - c. Snag Management Policies, along with the Siskiyou Streamside and Soil Management Policies, will continue to protect fish and wildlife habitat. Land management allocations (23 percent), Visual Management areas, and Streamside Management Zones contribute to old-growth dependent and cavity-nester habitat.
- 7. Protect the qualities of the Illinois River until the study recommendations to include it in the National Wild and Scenic Rivers System are examined by Congress.
  - a. The Illinois River will be restricted to Wild and Scenic River management constraints.
- 8. Management activities must adequately protect endangered, threatened, and rare floral and faunal species within the Unit.
  - a. Alternative D will adequately protect known species of threatened or endangered and rare floral and faunal species throughout the Unit.
- 9. Identify, evaluate, and, where appropriate, protect historical and archeological sites within the Unit.
  - a. Alternative D should not have any significant effects on historical or archeological sites. The project planning process for any ground-disturbing activities will include an on-the-ground inventory of cultural resource sites, districts, object, and structures, as required by Executive Order 11593. Compliance with 36CFR800 procedures will be completed during the project environmental assessment. The State Historic Preservation Officer



has been consulted regarding the possibility of any historical or archeological features in the Unit and the policies relating to ground-disturbing activities. Copies of this correspondence can be found in the Appendix.

10. Keep fire hazard at an acceptable level, commensurate with the risk.

a. Relative to the present, Alternative D will, essentially, result in the same fuel loading.

b. Improved road access will tend to increase the risk of man-caused fire ignition, but will also tend to increase the effectiveness of suppression activities.

c. Slash disposal activities will be undertaken after full consideration of soil, watershed, silvicultural, and fire management requirements.

11. Existing classified areas in the Unit will remain unchanged. Other areas may be administratively classified as needed.

a. The Kalmiopsis Wilderness, Wheeler Creek Natural Area, and Babyfoot Unusual Interest Area will remain as classified.

b. The Proposed Hoover Gulch Research Natural Area is in the process of being established as an example of a mixed evergreen forest (Douglas-fir - evergreen hardwoods).

12. Meet air quality standards.

a. Alternative D will not change the direction given the Forest Manager to maintain a satisfactory environment in areas sensitive to increases in concentrations of sulphur dioxide and particulates.

b. The Regional Smoke Management System will be adhered to when considering slash abatement projects.



## VIII. CONSULTATION WITH OTHERS

Input from sources outside of the Forest Service has been obtained throughout the planning process for this Chetco-Grayback Planning Unit.

The Roadless Area Review and Evaluation (RARE I) process was one early opportunity for public input. On March 13 and March 25, 1972, public meetings were held in Grants Pass and Medford, Oregon, respectively, to receive public comment on roadless areas of 5,000 acres or more in the Forest. Of the 3,626 persons providing inputs during this time period, 36 percent were in favor of further study of the roadless areas for possible Wilderness classification while 64 percent were opposed to such action. Additional comments were received on the areas in this Unit in response to the Chief's Draft Environmental Statement on Roadless and Undeveloped Areas.

Since that time, a number of roadless areas have been found, primarily through the land management planning process, that were omitted from the first inventory. Opportunities for the public to nominate areas on the local Forest or any Forest in the nation, occurred at meetings August 1, 1977, at Gold Beach, Oregon and August 6, 1977, at Ashland, Oregon. The objective of this exercise was to update the inventory and identify all areas that could be considered for inclusion in the National Wilderness Preservation System.

An information brochure was made available to interested persons during the spring of 1976. Later, public meetings were held on March 2 and 4, 1976. Forty-five people attended the Tuesday, March 2, meeting at Brookings, Oregon. The Cave Junction meeting the following Thursday, March 4, attracted about 120 persons. An informative slide tape show about the Planning Unit was presented during the first portion of each meeting. The participants were divided into smaller groups during the second phase of the meeting, where they could discuss their concerns and preferences with the other individuals and the Forest Service. Nearly 150 ideas were expressed at the meetings. These covered many topics and ranged from concerns about protecting the local and regional economic base to concerns about preserving additional wilderness.

The information and ideas presented at these meetings were fully considered before the land management alternatives were developed and displayed in an alternatives brochure and made available in September 1976. The newspaper-like brochure contained six alternatives and a blank map for the individual to develop his or her own land management alternative, if so desired.

Approximately 3,000 brochures were distributed to persons interested in this Planning Unit. Nearly 1,000 people expressed their opinions and concerns about the alternatives. The following is a tabulation of the respondents by interest groups.



Table VIII-1. Respondents by Interest Groups. 1/

Interest Groups	Percent	Totals
Preservation-Oriented	12.3	118
Compromise-Oriented & Other	5.1	49
Development-Oriented	<u>82.6</u>	<u>792</u>
TOTALS	100.0	959

1/ Interest Groups:

- a) Preservation-Oriented - A respondent who prefers Alternative A.
- b) Development-Oriented - A respondent who prefers Alternative F.
- c) Compromise-Oriented & Others - A respondent who prefers one or more of Alternatives B, C, D. A respondent expressing an opinion or respondent offering his/her own alternative.

The responses were analyzed and five alternatives, were selected for the Draft Environmental Statement. These alternatives represent a broad range of possibilities for land management allocation.

About 500 copies of the Draft Environmental Statement were distributed to the public. Only 66 comments were received.

Table VIII-2. Summary of Public Opinions on the Alternatives Presented in the Draft Environmental Statement.

Alternative	No. of Respondents Supporting Alternative
A	3
B	9
C	2
D (Preferred Alternative)	10
E	9
Other	<u>33</u>
Total	66



1. Comment: Reasons given in support of opinions expressed of times suggested. Topic 13 quote - "Miners have already damaged Kalmiopsis." To be specific in this instance the finger has been pointed directly at me. But in response I say that what was accomplished there in regard to exposing the existence of a possible abundance of minerals to make future generations more secure. "I AM PROUD". Letter 1.

Response: This quote is part of Appendix K which analyzed the public response to the alternatives brochure. The respondent's comment does not necessarily reflect the opinion of the Forest Service.

The Forest Service is not pointing the finger at anyone nor did we infer in anyway in the DES that you or anyone else were operating outside the law while mining in the Kalmiopsis.

2. Comment: We assume that you will delineate the area recommended for wilderness in RARE II and display that area in the FES. Letter 2.

Response: Yes, RARE II decisions are displayed in this FES.

3. Comment: There appears to be many subareas within Management Area 1 that would produce less than 100% full yield of timber. Letter 2.

Response: True, the potential timber yield was reduced an estimated 2%.

4. Comment: First, it is our understanding that, under terms of a Congressional agreement reached when the Endangered American Wilderness Act of 1978 (HR 3454) was passed, essentially all of the remaining roadless areas not included in the Kalmiopsis Addition or Wild Rogue Wilderness would be minutely examined in a special study to determine their suitability for wilderness designation. In view of the lack of detailed analysis of these roadless areas in these two documents, can we assume that this Congressionally-directed investigation will proceed before final land use plans for them become effective? Letters 4, 5, 7.

Response: All roadless areas not included in HR 3454 were studied by RARE II. The RARE II, which was recently completed, examined the unroaded areas for their wilderness potential. Various alternatives were analyzed for environmental, social, and economic effects. A wilderness attribute rating system was devised to evaluate the areas for natural integrity, apparent naturalness, and outstanding opportunities for solitude and primitive recreation. In addition, four supplemental wilderness attributes were rated: Outstanding ecological, geological, scenic, and historical features.

The results of the study are contained in a FES which recommends to Congress the areas that should be designated as wilderness further planning and those that should be devoted to non-wilderness uses.

5. Comment: What would the effect be on overall local employment if all the roadless areas were designated wilderness? Maximizing timber outputs on already roaded areas would increase local employment by 45% (494 jobs) and 31% (361 jobs) for the Chetco-Grayback and Rogue-Illinois, respectively, without sacrificing irreplaceable wilderness. Letter 4.



Response: As indicated in both DES's, at the present time employment would go down. The increase in employment for the maximum timber output assumes that every acre is available without any constraints under a fully regulated condition. A land management plan evaluates the effect of land allocations and a management intensity on potential output from that Unit. This may be considerably different when calculating harvest potential for the Forest as a whole and recognizing the effect of transforming the present standing Forest to a fully regulated condition under a scheduling constraint of maintaining a sustainable even flow of timber outputs. For the purposes of the land management planning process, an index of the potential timber output for the Unit was needed in order to make the "trade-off" decisions between possible resource use mixes proposed for the Unit.

Any increase in timber production (jobs) would require increased management intensity levels, which would require a mechanism for increased investments for its accomplishment.

6. Comment: What is the economic value (in terms of jobs) of the 5% reduction in fish population. Letter 4.

Response: A reduction of 5% would not have a significant effect upon employment. Commercial catches involve about 72% of the 5% reduction. This amounts to a relatively small percentage of the timber-related jobs. Available information makes it difficult, if not impossible, to make a quantified estimate.

7. Comment: Considering the size and rugged character of the two wildernesses, what is the potential for a horse packing business, a la the High Willows? Letter 4.

Response: The steep and rugged character does not lend itself to horseback riding. Although it is possible to ride the trails on horseback, a commercial type operation would cause extensive damage to the small camping areas and meadows. All feed for the horses would have to be packed, therefore increasing the number of horses per trip. The fragile nature and the limited number of those small camp spots would not support a commercial operation.

8. Comment: Another conspicuous way in which the economic benefits of roadless/wilderness areas are undervalued is through the use of visitor-day statistics for aggregating recreation use. Despite the considerable body of economic literature that can be used to estimate economic values of different kinds of recreation, no attempt has been made to do so. Why not? It is well-known among recreation-economists that wilderness-type recreation experiences are more highly valued. By using gross numbers of physical bodies as the basic unit of measure for recreation values, the analysts have submerged the economic importance of wilderness recreation. Letters 4, 59.

Response: Economic benefits associated with wilderness experiences are included in the economic analysis.

9. Comment: A truly woeful oversight of the DES's is the manifest failure to adequately assess the biotic resources of the planning unit. Letter 4.



Response: Over 90,000 acres, or 19% of this Planning Unit, is in a reserved category. This includes wilderness, botanical, and research natural areas which will protect the plants. Some plants will not propagate in a totally protected environment and require some degree of disturbance, either natural or man-caused.

Page 187 and 188 (DES) in the Appendix lists floral species that are tentatively identified as threatened or endangered species. These species will be protected from any management activity that may damage or destroy them. The known locations of these species are not publicized, to protect them.

10. Comment: The wildlife sections of the DES's should be modified by inclusion of the wolf (*canis lupus*) as possibly being present in the area. Letter 4.

Response: We have added a short discussion about the possibility of wolves present on this Unit, in this FES.

11. Comment: There is a basic public policy question which goes begging with regard to large-scale mining here: Just because it would benefit private entrepreneurs and some local segments of the economy, is that the only test such activity should meet before being allowed. Letter 4.

Response: Under the mining law of 1872 as amended (30 U.S.C. 21-54), National Forest lands are subject to location, prospecting, exploration, and mining of certain valuable mineral deposits. Citizens of the United States, or those who have declared their intention to become such, including minors who have reached the age of discretion and corporations organized under the laws of any state, may make mining locations. Agents may make locations for qualified locators. (30 U.S.C. 22; 43CFR3832.1)

12. Comment: This TCAC land-use plan is not comprehensive, rather we are recommending particular allocations and management methods, constraints, and directions affecting our local Takilma citizenry and resource base. The area we are covering with this proposed plan consists of the upper East Fork Illinois River watershed, from Elder Creek upstream. This area will be referred to as the "Upper East Fork Illinois River watershed or drainage" throughout this plan. Letter 7.

#### PROPOSED PLAN

- A. Allocation of East Fork Illinois River from the Siskiyou National Forest boundary upstream and main stem Dunn Creek as fisheries/watershed areas.
- B. Allocation of certain major tributaries as special treatment/watershed areas. These tributaries are Elder, Little Elder, Page, Chicago, N. Fork Dunn, Poker, and Black creeks.
- C. Re-evaluation of remainder of Upper East Fork Tributaries in regard to Stream Management Unit (SMU) classification.
- D. Strong visual safeguards for "seen areas" from the Takilma Valley floor.
- E. Discontinuation of herbicide use in the Upper East Fork drainage and an aggressive program testing the feasibility of non-chemical site preparation and release techniques.
- F. Pilot programs for the Upper East Fork drainage testing the feasibility of:



1. Utilizing more of the "un-merchantible material" from harvest sites.
  2. Marketing of more small sales including small volume sales, salvage sales, pole sales, fence post sales, and firewood sales.
- G. An intensified program of resource monitoring and data collection and compilation for the Upper East Fork drainage.
- H. A study to evaluate the benefits of, and possibilities for, a research natural area for the Grayback Planning Unit area.
- I. Official recommendation from the Siskiyou National Forest to the Intra-forest Planning Team of the Siskiyou Planning Unit, endorsing a non-development allocation of Roadless Areas 701 and 601. Letters 7, 58.

Response: Thank you for your proposed management plan for the Upper East Fork Illinois River. We have studied the proposal and feel that the preferred alternative will meet most of your objectives and constraints. Soils management, streamside management, and visual management unit policies are applicable to all of those areas. Techniques and specifications required to meet the policies vary with site-specific variables. Experience shows, that these policies are effective in protecting visual quality, water quality and fisheries habitat. Attempts to monitor water quality in the East Fork of Illinois area have failed because of the distruction of the water monitoring station by vandals.

The Forest has had several contracts for manual site preparation and conifer release. These projects cost more per acre and are not as effective as herbicide control. However, more areas are planned for manual site preparation and release in the future.

Most of the commercial timber sales require the yarding of unutilized material to the landing. It is then sold for fence posts, firewood, etc. If a demand for other products exist, these sales will be prepared and offered to the public for competitive bid.

A portion of the Siskiyou roadless area (4,950 acres) was recommended for wilderness by the RARE II study. The Forest Service is constantly on the lookout for areas which meet the needs of research natural area programs. The Forest Service in Oregon and Washington established the first natural area in 1931 and has continually supported the program ever since.

13. Comment: Can we assume adequate access to the Kalmiopsis Wilderness in the Whetstone Butte area will pass through the upper section of this unit? Letter 9.

Response: Yes, Alternative D did not change Whetstone Butte access.

14. Comment: In recent years the edges of clearcut units have received new emphasis under visual management. Has the thought of a band of shelter-wood cutting on the unit periphery been considered? Letter 9.

Response: Yes, this system has been used.



15. Comment: How do visual management standards (i.e., variety classes and sensitivity levels) affect timber management and harvest levels. Letter 11.

Response: Visual management is included in the special cut category in the timber resource plan. Special silvicultural prescriptions must be prepared to maintain these timber stands. The harvest level will be reduced an average of 75.2% on the visual management acres.

16. Comment: What effect will protection of threatened and endangered plants and animals have on overall management activities within this unit and the Siskiyou National Forest? For example, when and how will protection standards be applied in the case of the northern spotted owl? Letter 11.

Response: Threatened and endangered plants and animals that are discovered in the process of resource management will be protected by removing the resource activity from that specific location. This will have little effect on the overall management activities. Northern spotted owls are protected in wilderness, botanical, research natural, and dispersed recreation areas. Also visual (182,839 acres) and streamside management (35,525 acres) units provide habitat favorable to the spotted owl and other old-growth dependent species.

17. Comment: Implementation of the preferred alternative would result in serious economic impacts on the local area both in the short and long run. The establishment of a "ceiling" or 55 million board feet per year in the next decade would effectively prohibit increases in timber harvest from Forest Service lands in future decades under the even-flow concept. Any reduction in timber harvest eventually results in job reductions, this in an area of Oregon where unemployment traditionally is higher than state and national averages. The Department of Forestry recommends that the old-growth stands be converted under an accelerated schedule so that they can be intensively managed to meet growing state and national timber demands. Letter 11.

Response: The preferred alternative will not have a serious impact on the local area. It is true that under the present timber management plan and the evenflow concept, the allowable harvest would be fixed. However, a new Timber Resource Plan will be completed in the near future which could increase the harvest level, depending upon the investment level for intensive timber management. This plan will show the highest and lowest level possible for the Forest.

The Multiple Use-Sustained Yield Act of June 12, 1960, directed the Forest Service to maintain an evenflow of timber to facilitate the stabilization of communities. The National Forest Management Act of 1976 reinforced long-term sustained yield policy. The Act does contain exceptions to this policy which may allow the Forest Service to reevaluate the evenflow concept, but, until new regulations are received, we are directed to use this management philosophy. Eliminating the old growth would deviate from this concept because of a large fall down in harvest volume in future decades.

18. Comment: The Chetco-Grayback DES states: "Although there are an unlimited number of possibilities, these alternatives were selected and evaluated because they represent a wide range of land management options." (Page iii, emphasis added) Resource Study Section review of the alternatives do not find this to be the case. Letters 11, 18, 42.



Response: A reasonable range of alternatives was developed to provide different ways to address major issues, concerns, and opportunities.

19. Comment: The "no-change" Alternative A is not a viable alternative because: "Under this alternative, "no action" would be taken to develop a comprehensive land management plan." (Page 105) It is a well-known fact that land management planning must occur on all lands within the national forest system within the national forest management guidelines. Letter 11.

Response: The National Environmental Policy Act (NEPA) of 1969 requires that we have a "no action" or postponed action alternative.

20. Comment: Alternative B, the wilderness alternative, is not reasonable in that all roadless areas identified in the RARE II study are recommended for wilderness management. The RARE II question will ultimately be decided by Congress, and it seems highly unlikely that all roadless areas in this unit would become wilderness. Also, the adoption of this alternative would reduce the harvest by one-third, resulting in serious crisis for the residents of Curry and Josephine counties. Letters 11, 42.

Response: The wilderness alternative is necessary if we are to analyze and have an objective evaluation of the environmental impacts of all reasonable alternative actions.

Alternative B reflects an agreement between the Forest Service and the Sierra Club to settle a court action over RARE I. The Forest Service agreed that all roadless areas would be displayed in an alternative as wilderness. The Sierra Club withdrew their court action with prodigious.

21. Comment: Alternatives C, D, and E are all basically the same with only minor output variations. Letters 11, 42.

Response: The output levels came out relatively close; however, there is a difference in the type of land allocation that was made: Alternative C has 67,233 acres in Management Area 2, D has 1,759 acres, and E has no acres. Alternative E does not have any acres allocated in Management Area 6 or 7.

22. Comment: Roadless areas within this Planning Unit constitute a substantial portion of the land base. There are 171,058 RARE II acres out of the land base of 464,712 or 36.8%. RARE II acres contain 29.4% of total unit standing volume. When Congress decides which areas will be wilderness, the Department of Forestry suggests that a new set of alternatives be distributed for public review, one of which approximates the "full potential" for timber production. Also, the Department of Forestry recommends that roadless areas designated for the "further study" category not be used when calculating the annual harvest levels or that an alternative without the "further study" areas be included for comparative purposes. Letter 11.

Response: Potential timber yields will be discussed in the upcoming (1981) Forest Management Plan. "Further study" areas will be removed from the annual harvest areas until the study has been completed.



23. Comment: Dispersed forms of recreation are not incompatible with timber harvesting. In fact, timber harvesting and related road construction will enhance dispersed recreational activities such as opening new areas for hiking, fishing, and driving for pleasure. Letter 11.

Response: We agree.

24. Comment: Analysis of draft alternatives would be facilitated if in addition to management area allocation categories the regular land classification categories of standard, special, and marginal were used. Letter 11.

Response: Standard, special, and marginal will be discussed in the new Timber Resource Plan (April 1979).

25. Comment: The five-percent decline in anadromous fisheries predicted on page 141, 6, a, is not acceptable, given the present precarious position of anadromous fish through out the Northwest. A Forest land management plan should provide for enhancement and increase, not a decline. This predicted decline is not shown on Table VI-2. Letters 12, 32, 36, 42, 56.

Response: The anticipated five-percent decline is not unrealistic. It would be unrealistic to consider management of aquatic and terrestrial resources completely compatible. In resource management planning we are accepting reduction in forest production potential to maintain aquatic habitat in as near optimum condition as possible. However, the only way to assure complete protection of aquatic habitat is to do nothing within a watershed. Under a multiple-use concept no one resource value will receive all of the benefit or remain as a completely unaltered condition.

26. Comment: P. 35, 4th paragraph. Only a small part of the fish values in the watershed are assigned to the planning unit. In most areas, the most valuable spawning grounds are located on National Forests. More explanation is needed here. Letter 12.

Response: Within the Chetco-Grayback Planning Unit, anadromous fish rearing area is the most valuable habitat component. The majority of high quality rearing habitat is located outside the Unit.

27. P. 132, Table VI-2. What is the source of the potential output figures? It is not possible to see the predicted decline in anadromous fisheries. How is it possible for old-growth species and cavity nesters to increase under Alternative "D" in view of the continuing conversion of older forests? Letter 12.

Response: For the anadromous fish output, levels were based upon potential land treatment as it relates to stream sedimentation and with temperature increases (spawning and rearing habitat). It is not possible. The error has been corrected in the FES.

28. Comment: Two State Geologists participated in the plan. We believe State Fish and Wildlife Biologists also should participate. Letter 12.

Response: State Fish and Wildlife Biologists did participate in the Chetco-Grayback Statement. State Biologists provided information on existing fish and wildlife populations, population potentials, and quality of existing habitat.



29. Comment: We do have concern over the loss of 3.0 MM in current harvest and of 5.8 MM in potential harvest which reflects the difference between the preferred Alternative D and Alternative E, the so called commodity approach. There is some question in our minds whether or not the land allocations which cause this reduction are necessary in order to meet the other output goals and stay within management constraints. We believe this is particularly significant considering the major reductions in harvest which have occurred recently due to the expansion of the Kalmiopsis Wilderness Area. Letters 15, 56.

Response: We have adjusted the 10,053 acres of Management Area 2 to 1,759 acres. The 4,950 acres of the Siskiyou roadless area are proposed for wilderness; the remaining 3,344 acres will be placed in Management Area 1. Future Forest Land and Resource Management Plans will be computed from a base and increased as investments for intensive management become available and when intensive management is accomplished. This could conceivably raise the harvest level to the maximum output.

The land allocations are necessary to meet the direction set by the Multiple Use-Sustained Yield Act of June 12, 1960, amended by the National Forest Management Act of 1976 to administer the National Forests for outdoor recreation, range, timber, watershed, wildlife, and fish purposes.

30. Comment: Also, on page 80, in the final paragraph there is a section concerning the necessity to maintain a diversity of habitat for wildlife indicating:

- 1) Habitat should not be in isolated locations; and
- 2) The forest should not be maintained in a fully regulated condition with stands evenly distributed between ages 1 and 100.

This statement was editorialized in its content and again some documentation should have been presented to support the statements made or the statements should not have been placed in the EIS. The portion of the statement regarding age class distribution is directed at "old-growth-dependent wildlife species" but, the statement fails to define old-growth-dependent wildlife species or to identify what species are being referred to. While it is known that some species such as the Spotted Owl appear to desire an old growth situation it has not been proved, to my knowledge, that the species are indeed dependent on such specific habitat. It would seem that with 24 percent of the planning unit either in wilderness or to be managed in an undisturbed type environment more than enough habitat is provided to ensure the continued existence of these so called old-growth-dependent species. Letter 15.

Response: A list of wildlife species which utilize mature/ old-growth habitat was inadvertently left out of the DES. It is included in the FES (Appendix E).

It is impossible to acquire total, all-encompassing knowledge of a wildlife species' life requirements. In the case of the Northern Spotted Owl, all available information strongly indicates that for nesting, this animal is dependent on large broken-top trees, which are components of natural old-growth stands and not found in second growth or other habitats. Birds such as the Spotted Owl are incapable of "changing" their habitat requirements in a short-term situation, such as a 100 year rotation. Fundamental behavior patterns, such as those controlling nesting Spotted Owls, are genetically based (instinctive) and not subject to change because of "desire" (a term which cannot really be used to describe wildlife behavior).



All "wilderness" is not old-growth habitat (160 years plus), but it appears that proposed land management allocations, as outlined in the preferred alternative, will provide enough habitat to perpetuate old-growth wildlife species.

31. Comment: On page 80 of the DES, in discussing non-consumptive uses of the wildlife resource, a statement is made: "Although no figures for non-consumptive use are available for the planning unit, the 1970 national survey of fishing and hunting showed that for every day a hunter spent in the field, four other individuals were bird watching or photographing and/or observing wildlife in general." I found this statement to be on the verge of unbelievable and feel that it should have been footnoted as to source and some discussion included as to whether there was any data which would indicate that this statistic applied to the Siskiyou National Forest or the specific planning unit. Letter 15.

Response: The 1970 National Survey of Fishing and Hunting was published in 1972 by the U.S. Fish and Wildlife Service (Resource Publication 95). The 1 to 4 ratio is apparent to anyone who compares pages 5 and 38. This ratio was based on a countrywide sample and specific data were not available for the Siskiyou. "Non-consumptive use of the wildlife resource probably does not overshadow consumptive use as heavily on the Siskiyou; the point is non-consumptive use of the wildlife resource on the Siskiyou National Forest does exist, is significant and important, and must be considered in land management planning.

32. Comment: It is the function of the streamside management policy of the forest to assure that operations are carried on in such a manner as to meet the goals for water and fish habitat. The advances in directional felling and timber sale requirements as well as timber sale planning have shown on the Siskiyou National Forest that the water and fish habitat goals can be met without foregoing the timber potential completely along the majority of the streams within the Forest. In light of this I am somewhat amiss as to the necessity for Management Area 6, the fisheries watershed areas. It appears that this designation is approaching the point of creating a no-cut quarter-mile corridor along the effected streams without justification shown in the EIS for necessity of restrictions beyond the normal streamside management policy. Letter 15.

Response: Fisheries/Watershed areas were designed to: 1) Maintain or improve water quality; 2) Protect or enhance spawning and rearing habitat for anadromous fish; 3) Maintain old-growth characteristics for wildlife species; and 4) Develop and utilize timber, recreation, and mineral potential as consistent with the goals above. These four primary goals provide a better degree of control and protection than the Streamside Management areas and allow us the opportunity to harvest timber as long as the first three major goals are satisfied.

33. Comment: The concept used by the Siskiyou Forest of separating the forest into a number of planning units does cause some concern. It is difficult for the reviewer, such as ourselves, who are concerned with a broader picture, to properly identify what the effect of the unit plan will be on the over-all forest. On page 140 you indicate that Alternative D will "essentially maintain the existing economic situation". While this may be true of that portion of the economy dependent just on this planning unit it does not reflect the effect of, for example, the expanded Kalmiopsis, or reductions that may occur on planning units adjacent to this one. In short this planning unit and its effect on many outputs, including economic, is an integral part of a much larger unit and considering it in a vacuum such as has been done does not always produce the best results. Letters 15, 18)



Response: The direction from the Chief of the Forest Service when this planning process began, was to divide the forest into small planning units. Since that time, some of these units have been combined. The National Forest Management Act directs us to develop a management plan for the Forest as a whole. The Siskiyou is scheduled to begin the plan during Fiscal Year 1980 and complete it in the following year.

34. Comment: The old growth will continue to be cut until it is virtually gone. Timber harvests and employment will decline. Letters 16, 32, 40, 54.

Response: Areas of old growth will be maintained in the visual and streamside management zones, and in the reserved and marginal areas. Future Forest Land Management Plans will continue the management direction toward a regulated forest (even distribution of age classes) and an even flow of products which will stabilize the employment.

35. Comment: Time and time again I have planted units that have been repeatedly planted without success. In other units the trees might live but do not grow. They merely turn a sickly yellow color and survive. Such units are considered stocked by the Forest Service and as such are to compute the allowable cut. Letters 16, 35, 36.

Response: Reforestation of harvested units around the Forest has been highly successful in recent years. At present, an estimated 80% of the harvested areas are satisfactorily stocked or overstocked within two years. Within five years the statistic is about 95% and within ten years the statistic is about 99%.

Stocking surveys are conducted periodically to determine trees per acre, tree health, and the degree and/or cause of tree damage or loss. If the trees are as stated above, they are recorded but the area is not considered stocked until subsequent surveys indicate that the trees are healthy and vigorous. At that time the area may be certified reforested.

36. Comment: Other Units are so rocky that one can't even penetrate the ground with a hoedad and are therefore left to regenerate themselves as best they can (usually not at all).

Inquiries into why these units were ever cut in the first place usually meet with sincere and heartfelt "oops, we're soory-it won't happen agains" from the responsible officials. They tell me that, yes, bad mistakes were made in the past but now we understand things better and can prevent them. And still marginal areas continue to be cut and refuse to regenerate. Letters 16, 24, 25, 43, 52.

Response: A documented silvicultural prescription is required for all timber stands scheduled for treatment (clearcut, shelterwood, thinning, etc.). The prescription analyzes the present stand condition, physical site factors, management direction, silviculture objectives, and viable treatment alternatives. A complete prescription may include management requirements such as soil, water, visual, wildlife, range, archaeologic, fuel, yarding systems, and other constraints which may effect silvicultural objectives.

37. Comment: Let's face it, tree farming in the Siskiyou is a giant experiment. Not one crop of trees that we have planted ourselves has ever been harvested. Letter 16.



Response: The stocking level curves developed for the Siskiyou indicate that, on an average, the first entry or treatment would be at forty years. Since the current rate of timber harvest didn't begin until the late 1950's we wouldn't expect any harvest volume until the year 2000.

38. Comment: Extremely steep slopes and torrential rainfall common in this unit should make us lean towards a rather slow but careful development policy. Instead, we rush to road the roadless areas and cut the timber now, instead of concentrating on more accessible, less steep lands that are already roaded. Letters 16, 52.

Response: Soils Management and Streamside Management Unit policies are applicable to all areas. Techniques and specifications required to meet the policies vary with site-specific variables. Experience shows that these policies are effective in protecting water quality.

We are not rushing into the roadless areas to harvest the timber. These areas have been considered in our planning process for sometime. When the first roadless area inventory was conducted in 1972, many timber sales were cancelled. The principle reason these areas have not been accessed before is that they were in the center of the Forest and normal development progresses in increments from the perimeters to the center.

39. Comment: After reviewing the draft impact statement, it is our opinion that there are really only two alternatives from which to select a program for management. Letters 21, 24, 25, 34, 35, 40, 42, 43, 44, 49, 52, 54, 57, 59, 60, 61.

Response: Five land management alternatives were developed to emphasize different uses and outputs. These alternatives are responsive to a wide spectrum of values held by the public.

40. Comment: We believe that it would be wiser, and a more sound policy to remove the marginal timber lands from the allowable cut until such time as the technology is developed to successfully reforest these lands. Letters 21, 25, 38, 39, 40, 43, 44, 52, 54.

Response: At the present time marginal timber lands are not included into the allowable cut calculations. These lands will require increased technology to successfully harvest and regenerate, and are being withheld from the cut calculations until it is developed.

41. Comment: We feel that the fishery aspects of the planning unit has been undervalued. The headwaters of the Smith River are vital to the survival of the anadromous fishery. We can't afford to degrade the water any further in the Smith River. We feel that minimal development in these important southern Kalmiopsis roadless area watersheds is vital to balance the degradation taking place on the opposite slopes of the Smith River in the Siskiyou. Letters 21, 38, 39, 40, 43, 51.

Response: The preferred alternative provides for a fisheries/ watershed area, 1/4 mile wide, on almost 2/3 of the main fork of the North Fork Smith River within the Forest. Soils Management and Streamside Management Unit policies (See Appendix) are applicable to all other areas. Techniques and specifications required to meet the policies vary with site-specific variables. Experience shows, that these policies are effective in protecting water quality and fisheries habitat.



42. Comment: We believe that the management of non-game wildlife species as well as game species should be addressed in the proposed action plan. Letters 21, 54.

Response: The key to maintaining self-sustaining populations of all wildlife species living within the Planning Unit is to maintain a diversity of habitats. Additional research on individual species will produce useful supplementary information when it becomes available, but the first step is basic. This step will be achieved under the preferred alternative and several other alternatives.

43. Comment: We object strongly to the disclaimers inserted into many of the management goals and constraints for this planning unit outlined on page 84. These phrases, such as: "where practical, to the extent possible, and where appropriate" undermine these constraints and should be removed from the language of these objectives. Letters 21, 39, 60.

Response: We disagree. The intent of the goal, to protect where practical or to the extent possible, is clear. In management of complex, integrated resource systems, avoidance of doctrinaire approaches is a necessity.

44. Comment: We find that both of the general alternatives, i.e., the proposed action or the deferred action on all roadless areas, are unacceptable. We would support an alternative which includes those portions of the south Kalmiopsis roadless areas contained in the Baldface drainage into the Kalmiopsis Wilderness area. Also, those upper slopes of the drainages of Rough & Ready Creek, Josephine Creek, and Canyon Creek, should be managed to protect the wilderness character found along the Chetco Rim Trail. If mining or timber harvest is to take place in these drainages, they should be managed to protect the view from the ridge. Letters 21, 34, 38, 40, 43, 44, 51, 52, 57.

Response: The RARE II study was conducted to determine the wilderness potential of these areas. It designated those areas for multiple-use management. Therefore, this area will be managed under the soils, streamside, and visual management unit policies (See Appendix B, C, and Q).

45. Comment: Within the draft statement for the Chetco-Grayback Planning Unit, it is emphasized that wilderness comprises 19% of the Siskiyou National Forest. It is implied that this is enough, therefore, no further wilderness should be selected in the planning unit. We feel that this view is very short-sighted. Letters 21, 59.

Response: The RARE II study determined that Siskiyou Roadless Area 6701 should be wilderness. If Congress accepts this proposal, it would add 4,950 acres to the wilderness system. Also, the North Fork Smith River Roadless Area (6707) was designated further study. The final statement has been changed to agree with the final RARE II statement.

The purpose of the Wilderness section and the other sections of the Description is to provide information relevant to land management decision-making. Each of the five alternatives is responsive to different sets of values held by the public.

The wilderness recreation accounts for only a tiny fraction of the total recreation use in the National Forest System. Only 3.6% of the 188.2 million visitor-days recreation use recorded in National Forests during 1973 occurred in wilderness and primitive areas. On the Siskiyou National Forest, that percentage is even smaller. Of the 748,000 visitor-days recorded on the Forest in 1978, only 1.3%, or 9,700 visitor-days, occurred in the Kalmiopsis Wilderness.



46. Comment: Although it is stated that the Illinois River has been recommended for inclusion as a "Scenic" river under the Wild and Scenic Rivers Act, Figure 0.3 puts the estimated timber growing potential of the Six Mile area of the River at 70-95 cubic feet/acre/year, and notes that coordination of recreational use, timber harvest, mining, etc., will be necessary in the designated area. EPA would emphasize that non-degradation of the waters of the river in accordance with Section 12(c) of the Wild and Scenic Rivers Act is of prime importance in this Planning Unit and anticipates that the Forest Service will give priority to adherence to Wild and Scenic River objectives if the proposed area is so classified. Letter 22.

Response: The Wild and Scenic Rivers Act does not preclude management activities, such as timber harvest, recreation, etc. The 70-95 cu. ft. per acre per year is strictly a production potential for that land. The description of land management allocations section (Management Area 4, page 87 DES) describes our management intensification along the Illinois River.

47. Comment: We are specifically concerned that a water quality monitoring program, an essential feature of water quality protection, is not discussed in the draft statement. The primary need for such a program is to test whether proposed management activities are effective in maintaining a high quality environment. EPA feels that a water quality monitoring program is a necessity where intensification of timber management is contemplated, and that any major constraints on monitoring, such as lack of or low funding, should be discussed. The final environmental statement should describe the prospects for a water quality monitoring program, the parameters to be measured, and the frequency and location of sampling. Letter 22.

Response: The last paragraph on page 37 (DES) talks about our water monitoring efforts; however, we have elaborated more in the FES.

48. Comment: 76.1% of the area is designated as Management Area 1, an area of intensive timber management, with potential timber yield shown under Alternative D to be 117,600 MBF as opposed to the present potential of 58,000 MBF. This potential future increase in timber yield appears inconsistent with the statement on Page 118 that sediment will remain the same as present levels and with the Environmental Effects Matrix on Page 137, which indicates that water quality will remain largely unchanged. It appears that cumulative impacts of output levels of alternatives over a period of time are not reflected. Predictions of sediment production under the various alternatives are expressed as changes from the present situation. It would be helpful if quantitative information could be presented, and if predictions of future changes in sediment production could be expressed as a percentage change from natural conditions. Letter 22.

Response: Your comment seems to be dependent on a harvest of 117.6 MMBF. The 117.6 MMBF is a biological potential which we have no intention of harvesting. The biological potential is the maximum amount of sustainable wood fiber obtainable by application of intensive management practices to acres classified as commercial forest land. The needs of other Forest uses are not incorporated.

The harvest under Alternative D under budgetary constraints is 55 MMBF. This is lower than the present harvest and, therefore, the water quality will remain largely unchanged.



49. Comment: We cannot reconcile the increase in numbers of the Pileated Woodpecker and the Yellow-bellied Sapsucker pairs as shown on Table VI-2 with the "Moderately Unfavorable" environmental rating given the Landscape, Unaltered Environment, and Protected Habitat variables for Alternative D on Page 138. We believe the loss of old growth forests in the Planning Unit would have a significant adverse effect upon the old growth-dependent species. Letter 22.

Response: We agree. The figure for old-growth-dependent species is in error and has been corrected in the FES.

50. Comment: The discussion on energy resources appears rather limited in comparison with the discussion of other resources in the area. Energy resources should be given adequate consideration in developing a land use management plan for the area. The Southern Oregon coast is an energy-importing area with high power transmission costs; it may become imperative to develop whatever energy resources exist in that area.

In the discussion of the rationale for selecting alternative management plan "D", no mention is made of any recognition or desire to preserve management options for existing energy resources in the area. Letter 23.

Response: The Forest feels that the energy resources were adequately considered in the DES. The purpose of the DES was to allocate land for the production of a resource or a combination resources. Alternative D allocates 76% of the Unit to Management Area 1 for multiple-use purposes which would include energy resources.

51. Comment: I don't think the timber sales will anywhere near pay for the damage. And who is going to pay for and be responsible for the reforestation on these hillsides - not the timber companies with their miserable record of stewardship! Letter 24.

Response: The U.S. Forest Service is responsible for reforestation on Forest Service administrated lands. Reforestation costs are calculated for each sale and are included in the stumpage receipts.

52. None of the alternatives presented, including the preferred alternative, indicate the extent or cost of new roads necessary to harvest when assigning alternative values for the best use of the roadless areas in the planning unit. Letter 31.

Response: The road costs are a component of the cost/benefit ratios calculated in Table VI-6.

53. Comment: No consideration is given to the protection of the existing trail system. I believe that timber harvesting and recreational use of the same areas can coexist if more attention is given to planning for preservation of the existing trail network. Trails should be protected by adequate buffer strips where possible, and should not be interrupted by roads except where absolutely necessary. The recreational value of a given trail is enormously increased by uninterrupted length; much attention should be given to preserving this feature. Our trail system is a recreational resource that we cannot afford to ignore any longer. Letter 31.



Response: Almost half the trail system in this Unit is located in the Kalmiopsis Wilderness. As development progresses, the trail system will get smaller. However, wherever possible the trails will be relocated.

54. Comment: The integrity of the Kalmiopsis Wilderness, Oregon Caves National Monument, and the proposed Siskiyou Wilderness should be protected by managing the adjacent areas accordingly; for example clearcuts and roads should not be allowed to adjoin their boundaries. The headwaters of the creeks and adjacent ridgetops in these areas should be included in Management Area 2, particularly where they are in low timber-volume areas. Letter 31.

Response: Soils management, streamside management, and visual management unit policies (see Appendix B, C, and Q) are applicable to adjacent areas. Techniques and specifications required to meet the policies vary with site-specific variables. Experience shows that these policies have been effective.

55. Comment: Why has not the incredibly poor tree planting yield (especially south facing slopes) been addressed for our difficult to reforest locale? Letter 36, 43.

Response: The future Timber Resource Plan (1979) will address these areas and place them in a marginal category, if necessary. This is not a function of the land management plan.

56. Comment: How can the same number of trees per acre be harvested on a steep slope here as the gentle slopes of the Butte Falls district north of Medford. Letter 36.

Response: The yield of any growing forest is determined by site quality and degree of stocking. These factors are effected by various combinations of physical characteristics of forest areas, such as aspect, soil drainage, rainfall, temperature, altitude, and slope. It is virtually impossible to determine the importance each physical factor has in making an area productive. Therefore, various combinations in this area could produce the same yields as do other various combinations in some other location.

57. Comment: You expect to yard out clearcuts on steep slopes because you cannot get the trees out any other way. Steep yarded clearcuts have left enough scars here. Letter 36.

Response: Skyline logging systems and helicopters have been used extensively to harvest timber over the last seven years. These systems are capable of lifting the log off the ground, eliminating the ground disturbance that occurs with a ground lead system.

58. Comment: What about the number of acres transferred off the replanting backlog to non-timber designation? Have these "hidden" failures been taken into account in evaluating timber harvest potential of this area. Letter 36.

Response: There are approximately 5,000 acres of reforestation backlog on this Forest. This is about 5% of the acres that have been planted. The backlog is the areas that have not been satisfactorily stocked within five years. In the new Timber Resource Plan, areas that cannot be reforested will be placed in a marginal category.



59. Comment: Has there been any effort to predict problem reforestation sites before even deciding a programmed allowable cut in this area? As a sample of what I think is a positive approach to the problem, review Vegetative Indicators, Soils, Overstory Canopy and Natural Regeneration After Partial Cutting on the Dead Indian Plateau of Southwestern Oregon by Minore and Carkin, USDA Research Note PNW-316. The preceding paper studied old clearcuts and determined how much canopy should be left in doing a new cut to obtain a reforestable site. Key indicator plants were found to help predict a site that could be cut and successfully reforested. Letter 36.

Response: Yes, the area Ecologist is working on a similar report which will identify key indicator plants, for reforestation site purposes.

60. Comment: For instance, the low grade nickel deposits, while unique to this region, are not currently needed. They most certainly will be available for future use--therefore there is no excuse for wrecking a wilderness to extract them now. Another plan that conserves this resource in a wilderness area should be devised. Letters 39, 40, 43.

Response: The United States is currently importing approximately 70% of the nickel that is used. Any large mining operation will require an operating plan approved by the Forest Service for the protection of the surface resource values. This plan must include a rehabilitation plan for the area.

61. Comment: The discussion and description of the affected environment is generally well done and complete. One exception is the section on soils. Nothing is said as to the specifics of soil types, soil erosion and mass wasting within the unit. A map and description of these conditions is needed as these can be serious problems in the planning unit. Letter 42.

Response: The Soil Resource Inventory will be completed sometime in April. Inventory information about soil types, soil erosion, and mass wasting are included. The mapping is completed; however, it would be impractical to reduce the maps to a size suitable for this publication.

62. Comment: A map of areas already harvested and the approximate period at which they would be available for reharvest should be included in the timber section. Letter 42.

Response: We cannot see the significance of or necessity of such a map. The Timber Resource Plan will determine the number and distribution of acres by age class.

63. Comment: Why is the Forest Service still managing timber on the short term, i.e., "to obtain full timber yield"? (page 85, Management Area 1, paragraph 1). Letter 42.

Response: The Wildland Planning Glossary (USDA Forest Service, General Technical Report PSW-13/1976) defines short-range planning as "planning for a future less than 5 years distant." The Timber Resource Plan projects the timber yield over the next 300 years.



64. Comment: According to the harvest rate for the preferred alternative and the estimate of total merchantable timber (page 61, paragraph 1) the entire unit will be harvested in 82 years. This is short of the proposed 90 year rotation on land with a productivity of greater than 50 3/acre/year. Is this 10% difference between rotation time and complete harvest time adequate to insure reforestation and sustained yield? The data seems to point to harvest in the future. These figures may be considered only approximations and subject to change over time, but an explanation of this discrepancy should be included in the environmental impact statement. Letter 42.

Response: Your figure considers only the existing volume; however, growth figures and silviculture practices are also considered when calculating the harvest.

6. Comment: Page 84, number 8. The phrase "to the extent practical" should be deleted. Endangered species must be protected. It's the law. Letter 42.

Response: "to the extent practical" will be deleted from the FES.

66. Comment: Page 126, paragraph 1 sentence 2. This seems to be saying: If the long term soil productivity is altered, the long term soil productivity is protected. Clarification is needed. Letter 42.

Response: The Errata Sheet which is included with the DES corrects that sentence. The correction will be made in the FES.

67. Comment: Page 126, paragraph 7, sentence 2. This statement is inconsistent with the wildlife population levels for Alternative C, D, and E listed in Table VI-2. Letter 42.

Response: The wildlife population levels are in error. They have been corrected in the FES.

68. Comment: Page 128, paragraph 3. I question the validity of the statement that "economic benefits, such as jobs and income" can be irretrievably lost. Letter 42.

Response: The term "irretrievable" applies to losses of production, harvest, or use of renewable natural resources. No harvest land allocations will lose this production; however, if the use changes, production may be resumed. The production lost is "irretrievable", but the action is not irreversible.

69. Comment: We feel the DES lacks adequate specific information on proposed timber harvest, road construction, and other management activities and their probable impacts on the recreation environment. We realize the management plan and draft statement are intended to be broad and programmatic in nature, but we are concerned about the lack of provision for disclosure of detailed information in future environmental assessments.

Because of the magnitude of the proposed action, we believe other public agencies and citizens should have the opportunity to review and comment on specific details of environmental impacts through the NEPA process. To comply with the NEPA requirement for a detailed statement of the environmental impact of a proposed action, the specific nature and extent of probable impacts should be presented in the final statement unless there is assurance these concerns will be treated in future environmental assessments. Letter 45.



Response: The Chetco-Grayback DES displays five alternatives for management based on eleven management allocations. Each management allocation is constrained by its own specific goals and objective.

Resource data were compiled into a computer data base for each alternative utilizing various management allocations. Outputs were developed by way of resource models through a Linear Program. These outputs are summarized on Table VI-3.

Section V Effects of Implementation on pages 105-125 (DES) displays outputs and their effects on the environment for all five alternatives. In section VII, Identification of the Preferred Alternative, Alternative D was identified and has several pages of requirements and constraints needed to protect its valuable resources.

Most resource activities conducted in the Planning Unit after adoption will require a site specific environmental assessment.

70. Comment: The document provides only one alternative addressing the wilderness issue, and it is summarily dismissed as not offering enough in the way of amenity-commodity exchanges. The Kalmiopsis Wilderness and the roadless areas surrounding it are extremely important to fish and wildlife resources, particularly endangered species. Further, the Forest Service has failed to incorporate even a portion of the above potential wilderness areas in their delineation of management units for Alternatives C, D, and E. There are certain areas, such as the Packsaddle Mountain and Red Buttes (Kangaroo) area which deserve at least further planning status. Letter 45.

Response: The opportunity to recommend wilderness in Alternative C, D, and E was removed from the Forest Service by Congressional action with passage of the Endangered American Wilderness Act of 1978. Alternative B reflect an agreement between the Forest Service and the Sierra Club to settle a court action over RARE I. The Forest Service agreed that all roadless areas would be displayed in an alternative as wilderness. The Sierra Club withdrew their court action with prodigious.

Packsaddle Mountain was considered for wilderness in the American Endangered Wilderness Act of 1978, again in RARE II, and finally again in the Chetco-Grayback DES.

Red Buttes lies entirely out of the Planning Unit. It is located in California and is being considered in the North Siskiyou Planning Unit.

Both Packsaddle and Red Buttes were in RARE II. The allocation in RARE II was non wilderness for both areas.

71. Comment: There is no specific treatment of options for increasing the allowable cut through intensive management to compensate for "lost" areas allotted to wilderness. In addition, the statement fails to compare the benefits associated with wilderness (i.e., benefits to fish, wildlife, water and air quality, primitive recreation, visual resources, etc.) with the benefits of developing these areas. This information is necessary to make essential management decisions for this unit. Letter 45.



Response: This DES was written with timber harvest values arrived at with our current Timber Management Plan. A new Timber Resource Plan will be out during FY 1979, which will indicate increases in annual harvest through the use of intensive management practices.

72. Comment: The plan should emphasize an equitable distribution of resources while, at the same time, bearing in mind the susceptibility of wilderness to development impacts. At present, we do not see this attitude reflected in the draft statement, particularly in light of the selection of Alternative D as the preferred alternate. Alternative B or a combination of Alternative A and B would be the most beneficial to fish and wildlife, and we suggest an alternative which more clearly protects these resources. Letter 45.

Response: Alternative D, when implemented under all of our laws, regulations, Forest Service policy, and Siskiyou National Forest manual supplements for soil, water, fisheries, wildlife, and visual management, will protect resource values and wilderness quality of the Kalmiopsis Wilderness and Wild Rogue Wilderness.

73. Comment: We suggest that the statement should at least briefly summarize pertinent factors of ground-water occurrence. If ground water is used to supply recreational facilities, precautions taken to assure visitors of safe drinking water and to prevent sanitation problems should be discussed. The statement would also be strengthened by including more specific information on existing water-quality characteristics of the surface-water resources. Letter 45.

Response: Where water is supplied in recreational facilities, all requirements of the Clean Water Act 1970, and EO 11514 will be complied with.

74. Comment: Except for acknowledging its existence (page 4, 8, 49, and 72 and the map on page 53), the Oregon Caves National Monument, which is an enclave within National Forest lands in the Chetco-Grayback Planning Unit, is ignored. All alternatives, including the preferred one, place the area surrounding this National Monument in Management Area 1. Management Area 1 is a general coordinated resource management area, or in other words, the least restrictive of any of the nine management areas as regards National Forest operations.

Many of the activities permitted under multiple use management can have a serious adverse impact both upon the park resources and upon visitor enjoyment of the Oregon Caves National Monument. In the past, cattle grazing and logging activities have threatened the Lake Creek water source located on the Siskiyou National Forest about two miles from the park boundary. The domestic water supply for the Oregon Caves is obtained from this source. As an additional example, trespass cattle have in the past caused damage to park trails.

In view of the potential impact by Forest Service management actions upon the unique values contained within the Oregon Caves National Monument, we recommend that the surrounding area be designated as a special management unit with its own management goals. Prior to implementation, any proposed management actions within this area need to be carefully evaluated to determine what impact they may have upon the National Monument.



At a meeting held in March 1978, Siskiyou National Forest Supervisor William Covey and Klamath Falls Group (NPS) General Superintendent Ernest Brogman agreed in principle to the establishment of a special management unit for this area. Planning responsibility for the unit would rest with the District Ranger, Illinois Valley Ranger District, and consequently with the Superintendent, Oregon Caves National Monument. We suggest that this agreement be documented in the final environmental statement for the Chetco-Grayback Planning Unit. Or lacking this special recognition the final environmental impact statement should fully and specifically state the impacts of the National Forest actions on the Monument. Letter 45.

Response: In the past ten years, all activities surrounding the Park have been coordinated with the Park Superintendent.

In the past five years, visual quality of the landscapes on the Oregon Caves Highway, No. 46, has been and will continue to be a primary concern. Also, water quality, soils, range, fisheries, and wildlife are carefully assessed.

Examples of our concern for Oregon Caves National Monument are the Little Grayback helicopter sale along Oregon Caves Highway, No. 46. This sale was sold as a helicopter sale primarily to satisfy visual quality objectives from Oregon Caves Highway, No. 46.

The Upper Caves sale was logged with a helicopter, and trees were directional felled to protect watershed values. Water quality was our primary concern. Lake Creek is the Oregon Caves National Monument domestic water source. We chose not to construct roads and cause soil disturbance by cable logging which would create sedimentation in Lake Creek. With a partial cut buffer on Lake Creek and helicopter yarding, we feel Lake Creek water quality has almost total protection.

During the summer of 1979, we will finish construction of two drift fences which will prevent cattle trespass from the Applegate and Illinois Valley range allotments.

At the March 1978 meeting referred to between Siskiyou National Forest Supervisor William Covey and Klamath Falls Groups (NPS) General Superintendent Ernest Borgman, an agreement was reached. The Illinois Valley District Ranger is to draw up a plan which states the objectives, and management requirements and restraints for land surrounding Oregon Caves National Park and State Highway No. 46. Planned resource activities as scheduled under our multiple use concept would be coordinated with Oregon Caves National Monument Superintendent. After an on-the-ground observation of a planned resource activity, the Forest Service may modify our planned action, based on National Park Service input.

75. Comment: Page iii, Land Management Allocation Table. The tabular array of preferred alternative land allocations lacks real meaning because it lists the numbered management areas without definition. We suggest a brief summary description of objective after each number; e.g.: Letter 45.

Response: We agree. The definitions have been added to the FES.



76. Comment: Page 4, Geographical Conditions, paragraph 3. The text would provide clarification to a reader if the "other proposed areas" mentioned in this paragraph were named. A reference to the map of those special areas (page 52) would also be useful. Letter 45.

Response: We agree and have referenced the special areas to the map on page 53 (DES).

77. Comment: Page 16, first paragraph. The counties sharing of the revenues from the O&C - formula lands is 50% of gross revenues, not net revenues, as stated. Letter 45.

Response: The statement has been changed to: Counties receive 25% of revenues from National Forest Lands and 50% of revenues transferred to the BLM from O&C land managed by the Forest Service. (An additional 25% of O&C formula funds are plowback funds for resource management.)

78. Comment: Page 22, Energy Resources. Information on potential hydroelectric power sites has been included, and this energy resource has generally been adequately recognized. However, a few of the damsites listed are not within the planning unit, nor would they affect the planning unit lands; consequently, they could be omitted from the statement. These sites are: Indian Hill, on Hood Creek; Deer Creek, on Draper Creek; and Gilligan Lake, on Elk Creek. It would be helpful to the reader if a damsite location map or table were included in the statement. The statement should also include one other pumped-storage site in addition to the five mentioned on page 22. The Looking-Glass Prairie pumped storage site (Corps #623) would have its lower reservoir located within the planning unit in T. 39 S., R. 12W. Generating capacity ranges from 1,000 MW to 2,000 MW, and storage requirements range from 12,800 to 25,600 acre-feet. The lower reservoir areas range from 540 to 720 acres; consequently, the statement should be corrected to reflect this increased range of areas.

We would like to point out that in the Bureau of Reclamation's Illinois Valley Division study completed in 1964, the Sucker Creek site was identified as having potential to serve irrigation, water quality, fish and wildlife, and flood control functions. About 12,000 acres were identified as irrigable at the time. In view of those findings, the Forest Service might wish to indicate at an appropriate juncture in the statement the multipurpose capability of the site.

Investigations by the Geological Survey reveal that several other damsites not mentioned in the statement lie within the planning unit or would back water into it. Letter 45.

Response: The sites you listed in your table are included in the Energy Resource, Section II-D, in the FES.

79. Comment: A further deficiency in the statement is the lack of recognition of power site withdrawals within the planning unit. The Geological Survey has classified approximately 9,500 acres for waterpower or water storage purposes along the Illinois River, its tributaries, and the North Fork Smith River. The lands are in Power Site Classifications 123 and 314 and Water Power Designation 14. There are applications for Federal Power Projects 853 and 1977, which withdrew lands within the planning unit. These withdrawals could be mentioned in either the section on "Energy Resources" or the section on "Land Ownership". Letter 45.



Response: We have added these sites to our Energy Resource section. However, P.L. 359, August 11, 1955 (69 stat 681) opens powersite lands to mineral entry provided that power rights to the land be retained by the U.S. If withdrawal land is under power project or permit, the provisions of this Act do not apply.

80. Comment: Page 22, footnote 4. This footnote is incorrect, as the report was prepared by the Geological Survey and the State of Oregon. It was published by the State of Oregon, Department of Geology and Mineral Industries, as Bulletin 64, and is a State Publication. Letter 45.

Response: The footnote is changed to reflect the publication that was issued by State of Oregon, Department of Geology and Mineral Industries.

81. Comment: Page 28, paragraph 3. What particular methods will be used to reclaim disturbed areas? The considerations required in a detailed reclamation plan should be spelled out in order to insure that soil stability and protection of water quality are adequately protected. Letter 45.

Response: Under the recently-established administrative mining regulations, an operating plan and reclamation plan must be submitted to the Forest Service. After we receive these plans, we will be in a position to accept or reject the operation, or require more reclamation measure to assure soil stability and water quality protection. Without any knowledge of a proposed mining activity, we can not speak in detail about reclamation measures necessary for resource protection.

82. Comment: Page 34, paragraph 2. Recently updated values for instream sport fishing for anadromous species are now at \$51 per angler-day. Trout fishing values are now estimated at \$12.65 per angler-day. Those figures are based on increases in the Consumer Price Index and on values supplied by the Oregon Department of Fish and Wildlife. Letter 45.

Response: You are correct. However, our economic values for all other resources are at 1975 values. We will retain 1975 fisheries values to keep our economics on a common basis.

83. Comment: Page 38, paragraph 2.. The interrelationships between Class 3 and 4 streams and the downstream Class 1 and 2 waters should be examined more thoroughly. The former streams, because of their smaller size and remoteness, are generally overlooked with respect to their influence on downstream water quality. However, in terms of sediment and chemical transport, they can have damaging effects on Class 1 and 2 streams. This factor can be significant if timber operations in the upper watershed are not managed properly. Letter 45.

Response: You are correct. In our timber sale planning, we follow Forest policy established for streamside management found in Appendix B, page 155-161 (DES). All timber sales are visited on-the-ground by a Hydrologist and Soil Scientist. They submit data at an environmental assessment data exchange and are members of the interdisciplinary team for environmental assessment of the projects.

84. Comment: Page 38, paragraph 5. The impacts on water quality from herbicide and pesticide use during timber management operations should be discussed. There is also a decided lack of specifics regarding the impacts of logging on spawning habitat, water quality, stream temperature, and flow. These topics should be included. Letter 45.



Response: The impacts are covered by an FES on Vegetative Management with Herbicides, Volume I. Pacific Northwest Region, Forest Service, U.S. Department of Agriculture.

85. Comment: Page 39, Table H-1. We suggest that for clarity the numbers listed under "SMU" should be identified as being the stream classes that are described on pages 38 and 157-160. Letter 45.

Response: We agree.

86. Comment: Page 44, Land Ownership. The second paragraph contains some errors of fact concerning the O&C lands:

1. The O&C Railroad's grant lands did not revert back to the United States for failure of the railroad to "meet their obligations to build and operate a railroad in the area." The railroad company did complete the rail line and did operate the railroad for which the grant was made (the Southern Pacific Railroad Co. now continues to operate on this rail line as the successor of the O&C Railroad Co.). Instead the O&C Railroad Co. lost its grant lands for failure to abide by certain other provisions of the grant; namely, to sell the lands to actual settlers in parcels not to exceed 160 acres and at a price not to exceed \$2.50 per acre.

2. The other errors concern the lieu-tax payments to counties. The O&C counties receive 50% of the gross receipts from those lands--not the 75% of the net receipts as stated. The 25% difference is returned to the administering agency (BLM or GS) as plowback funds for resource management. The statement on page 16, first paragraph, concerning the fund distribution is correct except that the revenues shared are gross and not net revenue for those lands.

We suggest the following rewording of the second and third sentences:

The O&C Railroad's grand lands reverted back to the U.S. after the railroad failed to live up to the terms of the grant that it had received. The O&C-formula lands return 50% of the gross receipts to the counties (an additional 25% of the O&C-formula funds are returned to the administering agency for resource management). The remaining 88% of the... Letter 45.

Response: You are correct. We corrected the reason stated for O&C lands reverting back to the government.

87. Comment: Page 47, Range, paragraph 4. The AUM's mentioned in this paragraph should be compared to the maximum number the range can sustain. This section should also discuss (1) what specific types of forage have been considered for wildlife and in what areas, and (2) what methods have or will be used to prevent detrimental water quality impacts associated with overgrazing and livestock intrusion into streams. Letter 45.

Response: A conservative estimate of the maximum range capacity based on the acreage of commercial forest land indicates the maximum AUM's available are 12,000. Since this estimate is partly based on future transitory range, an actual inventory is not possible. Each successive year following timber harvest, production of biomass suitable for browse will change. Even older age classes of timber, i.e., 20 years and over, will continue to provide some browse; however, the production from these areas was not considered for cattle use.



The species of forage for wildlife are extremely variable and dependent on season of the year and species of wildlife considered. Therefore, the question is too general to respond to. Conservative stocking of cattle relative to potential, obviates the necessity for detailing this information in this report.

The last question should be considered in the context of area and number of cattle. Only 250 head of cattle use 135,000 acres. Stocking levels are conservative, and superior grazing systems are used to insure protection of all resource values. A rest rotation grazing system is used on the largest allotment (more than 100,000 acres). It provides for all the pastures to be rested (not grazed) each third year. The coordinated management plan was developed with the permittees, three private land owners, Department of Interior BLM, Josephine County, U.S. Department of Agriculture Soil Conservation Service, State of Oregon Department of Fish and Wildlife, Siskiyou and Klamath National Forests, to provide a unified plan considering all ownerships grazed and primary affected resources. The quality of streamside vegetation is protected. There may be "livestock intrusion into streams," however, this appears no different than intrusion by other warm blooded animals.

88. Comment: Page 56, Soils. Inclusion of a soils map would be useful in determining possible effects from logging operations on fish and wildlife habitat. Letter 45.

Response: We agree. However, we are just now finishing a new Soil Resource Inventory. A Soil Scientist participates in each project and is a member of the interdisciplinary team that makes the environmental assessment. Soil prescriptions for prevention of soil resource degradation are in the Appendix.

89. Comment: Page 68, paragraph 1. This paragraph discusses the total planned road network for the unit. It should be noted that, as with the alternatives, impacts to wildlife will vary depending on the location, length, durability, and use of the road system. A policy to close and revegetate unused roads should be considered to protect wildlife. Letter 45.

Response: We agree. A Wildlife Biologist is a member of the interdisciplinary team on each project. Road management needs are a part of each environmental assessment; some roads are gated to prevent wildlife harassment. All roads permanent system and temporary spurs are revegetated to prevent erosion and include species of grass to benefit wildlife.

90. Comment: Page 78, Footnotes. The footnotes are not consistent with the corresponding subject matter of the text. Also, there is no footnote "1/" reference in the text. Letter 45.

Response: We have made the necessary changes to make the footnotes agree with subject matter.

91. Comment: Page 137, Table VI-6, Environmental Effects Matrix. The symbols used in the matrix are described above the table. The symbol "\_\_\_" is shown for highly unfavorable. In contradiction the symbol "\_\_\_" is also designated as highly unfavorable. By a review of the data in the table we assume the "\_\_\_" symbol definition should be changed to "slightly unfavorable." Letter 45.



Response: The symbol "-" is shown as highly favorable and is incorrect. It should be slightly unfavorable. This correction has been made.

92. Comment: Page 24. The term "inflated" is used to describe the price of gold. The price of gold is not inflated. The price has risen to its normal level after restraining controls were removed. The price of gold will never deflate to \$35 per ounce. Letter 50.

Response: We have reworded the FES.

93. The State has pre-empted the USFS from reclamation control for hard rock minerals, under the State 1972 Mined Land Reclamation Law and the memorandum of agreement dated July 1, 1973 between the Department of Geology and Mineral Industries and USFS. Letter 50.

Response: We agree. The text on page 28 (DES) did not refute that statement.

94. Comment: Page 107, Alternative A; page 110, Alternative B; page 119, Alternative D; page 123, Alternative E; Area 9 is to be withdrawn from mineral entry without a statement or of consideration of its mineral values. Under Alternative C, page 114, not only Area 9 but all Proposed Research Natural Areas would get the same treatment. Letter 50.

Response: Natural areas serve as a standard or baseline for comparison with areas influenced by man; therefore, mining and many other management activities are not compatible with these areas.

95. Comment: Also, any statements meant to capture the support of hunters and fishermen, such as a claim that the aftermath of a logging show is a renewed habitat for increased numbers and species of animals, is a ridiculous statement since the variety of soils, slopes, exposures and natural habitats is so plentiful in this country that I couldn't imagine how a logging show would make it better. Letter 51, 59, 63.

Response: Sustained yield timber management does increase or maintain habitat diversity, and many wildlife species do benefit from it. Each of the more than 250 different wildlife species has its own specific habitat preferences or requirements. For instance, Elk favor low vegetation in harvested areas. They also require perimeter cover for protection. The key is maintaining a diversity of habitats from early successional stages to the climax old-growth forest.

96. Comment: Looking at a map of the Siskiyou National Forest, there seem to be a small strip along the eastern edge between the boundary of this planning unit and the Rogue NF which I would think would be part of this unit. It appears to be part of RARE II area 6703. Letter 52, 57.

Response: It is part of the Kangaroo roadless area and also part of the North Siskiyou Planning Unit. This area will be covered by the Draft Environmental Statement for North Siskiyou Planning Unit. The high ridge along the border of the Siskiyou and Rogue River National Forests has been managed as a scenic area since 1964.



97. Comment: We are taking the stand that these areas need to be studied for the best use, be it timber, water, recreation, wildlife, minerals or whatever. Most of these areas are roadless for reasons of too little timber, ground too steep or tree pockets too small to warrant road building, etc. Some of the reasons for much of the poor stocking levels are past fires, poor soils, moisture stress from exposure to the south and west and brush competition. Until these problems are solved, much of these areas should remain unlogged. Letter 57.

Response: All of the roadless areas will be subject to individual sale environmental assessment reports and silvicultural prescriptions. Please refer to comments 36 and 40 for a discussion of the procedure in handling marginal classified lands because of regeneration and other problems.

98. Comment: We also support Area 6701 for Wilderness and 6707 for further planning, since both these are parts of larger areas in adjacent National Forests. Letter 57.

Response: The FES has been changed to reflect the RARE II findings. The 4,950 acres of 6701 was proposed for wilderness, and 6707 was designated further planning.

99. Comment: The entire EIS is written within the framework of the definition advanced for "multiple use," found on page 82: "...in practice, multiple use strongly tends to be a patchwork of dominant uses over a Unit. Secondary uses usually occur as consistent with the particular dominant use in a particular segment of the larger unit." Maximization of one resource with others occurring incidentally is a multiple of uses, but it is not multiple use. Multiple use means the combination of those uses which are best combined, keeping in mind that the public lands are held in stewardship for the future. Letter 59.

Response: Multiple use means the management of forest and related areas in a manner that will conserve the basic land resource itself, while at the same time producing high-level sustained yields of water, timber, recreation, wildlife, and forage, harmoniously blended for the use and benefit of the greatest number of people.

100. Comment: Use of this definition of multiple use leads the EIS into several problems. The planning assumptions, management goals and alternatives are all slanted towards development, with the dominant use tending to be timber harvest and its related activities.

For example, under Resource-related Planning Assumptions, there is no assumption relating to the need for ecosystem integrity and stability, which is mandated in the National Forest Management Act of 1976. Concern for ecosystem stability and habitat diversity will increase and dictate to a large extent management activities on the Unit. Ecosystem stability includes leaving significant portions of all habitat components, such as old growth and riparian areas. A related concern would be the "mining" of resources. Those resources that are mined, be they nickel or timber, need to be harvested only where it will do the least damage. Land allocations should be based partly on a criterion of utilizing carefully such resources. On the Siskiyou, timber is frequently one of these. Letter 59.



Response: Land allocation and management decisions on the Siskiyou National Forest attempt to be responsive to the wide range of public issues and concerns. This Forest provides high output levels of many goods and services demanded by the public. These include high quality water, anadromous fish, a wide variety of wildlife, wood, wilderness, a wide variety of recreational opportunities, and other goods and services.

The evenflow nondeclining timber yield concept is favorable for habitat diversity (See comment 95).

101. Comment: The section on Management Goals and Constraints should not only explain what the goals are in terms of commodity production, but also give the public an understanding of the constraints on that development, as well as positive steps that will be taken to protect the environment. For several reasons, this section does not reach that goal. On page 84, the EIS states: "Future conditions on the Unit must be monitored for comparison with the present status quo conditions to assure compliance with the following, more specific constraints..." The baseline of comparison for future activities should not be the present levels of change; but the natural one. Using the present levels of change will frequently not show the magnitude of changes occurring in the future as a result of man's activities. Letter 59.

Response: We have included all the outputs and other information important to comparing alternatives and decisionmaking. Coefficients and other information not central to decisionmaking are available for review at the Supervisor's Office.

We believe it is important to consider both the existing environment and future environment under the proposed land allocations. On-going programs will monitor both existing and future activities. Research Natural Areas are set up as a standard or baseline for comparison with areas influenced by man.

102. Comment: One major concern expressed by our clients is that of watershed integrity, and forms of management that will protect it. The fisheries/watershed management area is simply a 1/8 mile distance from a stream's edge in which management activities will be somewhat constrained--although there is programmed timber harvest. There is no management area which deals with the concept of a watershed, and of designating all key lands within it to maintain water quality. Such a management area will also need to include some management constraints, such as a ban on the use of herbicides in the designated watershed. Letter 59.

Response: The whole Forest is a management area which has management constraints on all watersheds.

Soils Management and Streamside Management Unit Policies (See Appendix) are applicable to all areas. Techniques and specifications required to meet the policies vary with site-specific variables. Experience shows that these policies are effective in protecting water quality and fisheries habitat.

103. Comment: Second, the distribution of old growth is a key question which is not addressed by leaving some areas, such as Wilderness, natural. Old growth is a component of the forest ecosystem. It is not merely wildlife habitat. Thus, the extent to which pileated woodpeckers are being used as indicators of the old growth needs to be explained. Is the size of their territory known? What are their feeding and nesting requirements? There needs to be an alternative which allocates land to old growth, such as 15-20%, distributed evenly across the forest in key places, such as steep slopes and headwaters. Letter 59.



Response: Territory size for all pileated woodpeckers ranges from 100 to 600 acres. We used a 128 acre territory (5 pairs per square mile) in our predictions of output levels for each alternative. Average territory size on the Siskiyou may be larger than 128, however, population ratios (% change) between alternatives would remain the same regardless. Pileated woodpeckers excavate 3 cavities per year (2 roost, 1 nest). Cavities are usually located in trees 20 inches or more DBH, at heights above 40 feet. These birds forage primarily in dead wood in snags, logs, and naturally created stumps in fairly dense mature forests.

104. Comment: The Siskiyou is quite high in geological and botanical wonders, yet none of the alternatives, nor any of the management areas, explore land allocation that would protect such areas, such as Scenic Interest Areas. The Forest Service has the option of creating land allocations that restrict development activities in a variety of ways outside of Wilderness and RNA's. No alternatives deal with protection of the Illinois watershed through designation of key roadless areas such as Squaw Mountain as Wilderness and use of other management constraints. Letter 59.

Response: Management Areas 2, 4, 6, 9, 10, and 11 were designed to protect such features. New areas that are discovered during management activities will be protected.

105. Comment: Another aspect of land management that has been completely ignored by the EIS is old growth. It is surfacing as a major issue in Oregon. Many national forests are implementing some sort of old growth plan. All national forests in Oregon except the Siskiyou and the Mt. Hood are proposing plans to protect old growth. It is insufficient to simply say that a certain percentage of the planning unit will be managed in its natural state, for two reasons: First, those areas that are to remain natural will not necessarily have old growth of sufficient amount or character to quality as either system component or wildlife. Letter 59.

Response: Old-growth areas will be maintained in visual and streamside management zones along with the reserved and marginal areas.

106. Comment: There is no quantification of the impacts of development. For example, the section which describes the effects on vegetation is exactly the same under alternatives (A) and (B) and under alternatives (C), (D), and (E). They merely state that vegetation will be left in essentially the natural state except that in developed areas there will be a return to the early successional stages. This gives the reader no understanding at all for the gravity of the changes, or the specific effects in specific areas. For example, what will be the effect of clearcutting in the Illinois watershed in terms of increased sediment load? Letter 59.

Response: Under the evenflow non-declining yield concepts, a diversity of vegetation will be maintained through all age classes.

Sediment production and overall water quality will remain essentially unchanged over the long-term. On total watersheds, flow changes are usually undetectable (See last two paragraph on page 38, DES). Sediment and turbidity may be temporarily increased.



107. Comment: What would be the level of wildlife populations maintained if 20% of the Unit were put into old growth management? Letter 59.

Response: There is no diffinitive answer to this question, because habitat requirements vary from species to species (over 250 wildlife species on the Siskiyou). If 20% of the Unit were put into old-growth management, "old-growth-dependent" wildlife species would be able to sustain themselves indefinitely. This would probably be true if old growth were managed at the 5% level.

108. Comment: Roading, harvesting, and managing the undeveloped portions of these planning units will severely degrade, if not eliminate many of the botanical, wildlife, and fisheries resources now present. Alterations in the successional stages, especially reductions in old growth, climax forests, will destroy habitat for many rare and endemic plants, and diminishing wildlife species. Disturbance of unstable soils will cause erosion and mass soil movements that silt in spawning gravels and exposure of headwaters by timber harvesting will raise water temperatures. Decreases in anadromous and resident fish populations are inevitable. Letter 61, 69.

Response: Please refer to comment 16. There will be some resource damage or reduction in the resources of the Forest. It is recognized that there has to be a give and take in the complex management of the Forest. We do feel that the Siskiyou can be proud of their accomplishments in the field of preventing environmental damage. The Forest Snag Policy, Streamside Management Policy, water monitoring programs, and Visual Management Policy have all helped to decrease damage to our resources. Through the project environmental assessment process, the Forest resource specialists are continually on-the-ground reviewing the proposed actions. We now have specialist in hydrology and soils directly located on the Districts to give input and suggestions on ways to reduce possible resource conflicts.

109. Comment: In closing, I would submit that wilderness is, indeed, true multiple-use. Only timber harvesting and the use of motorized vehicles is prohibited in the Wilderness Act. Recreation is not the only use of wilderness. The abundance and diversity of rare and/or endemic plants and wildlife, and quality watersheds supporting anadromous and resident fisheries demonstrate the wide range of uses of the roadless areas. Letter 61.

Response: We agree. The official definition of multiple use is: "Multiple use means the management of forest and related areas in a manner that will conserve the basic land resource itself, while at the same time producing high-level sustained yields of water, timber, recreation, wildlife, and forage, harmoniously blended for the use and benefit of the greatest number of people."

110. Comment: On page 273 and 274 of the statement are tables showing values assigned to fish caught by commercial and sport fishermen. It is difficult to understand how a chinook salmon caught commercially is valued at only \$11.00 (page 274) but if it is landed by a sport fisherman its value rises to near \$135.00 unless it comes from the Illinois River where it's worth only \$126.00. The term net value is a poor one to use when discussing sport fishing values. A better approach would be a discussion of economic impact or business income generated by sport fishermen rather than trying to set net values. The fish valuation statements on page 34 and the tables on page 273 should be footnoted to indicate that fisheries and timber values are not directly comparable. Letter 62.



Response: We disagree. The values of 12 million dollars and 5 million shown in the Rogue-Illinois and Chetco-Grayback respectively were calculated using \$28.00/angling day and not based on the number of fish caught. The Siskiyou National Forest feels that this approach of using angler days includes the economic impact or business income generated by sports fishermen.

111. Comment: The timber valuation section on page 61 needs to be clarified. What is gross value (selling value)? Is this the stumpage price that the Forest Service receives for the timber? Letter 62.

Response: Gross value is the adjusted selling value plus the average purchaser overbid for fiscal year 1977 and 1978. No, we receive the indicated advertised rate (selling value minus road, logging, and manufacturing costs) plus the purchaser overbid.

112. Comment: The cost benefit tables on page 136 need some explanation. Letter 62.

Response: We have added an explanation to the FES.

113. Comment: We recommend that the output tables shown for each alternative be modified to reflect figures for the portion of the forest in California separate from the Oregon portion. If this were done, we would be in a much better position to assess the positive as well as the negative aspects of each alternative with respect to the State's fish and wildlife resources. The way the information is now presented makes it difficult for us to make a meaningful assessment. We believe this is important in light of the large percentage of the unit in California that is designated as Management Area 1 lands (optimized timber production) under the preferred Alternative D.

We recommend that the resource summaries for each alternative that correspond to the output tables also be modified to address separately the impacts on various resource values for the California portion of the forest. Letter 63.

Response: The data for the Chetco-Grayback Planning Unit was collected for the Unit as a whole. It would be very difficult to almost impossible to separate the data for the California portion of the area.

114. Comment: The description on page 86 of management prescriptions that would be applied to "Management Area 2" lands should be modified to state more clearly what would happen to RARE II (Roadless Area Review and Evaluation) areas. It is difficult for the reader to tell what the ultimate disposition of RARE II lands would be--that is, whether they will be roaded for resource production or unroaded for resource protection. This is of concern to us because RARE II Area 6701 lies within California. Valuable and diverse wildlife habitats and dependent wildlife populations exist within this area and are self-sustaining and sensitive to roading. Letter 63.

Response: The RARE II study recommended that 4,950 acres should be wilderness.

115. Comment: There are several statements in the DES to the effect that specific actions will be taken to provide for the maintenance of existing wildlife habitats and dependent wildlife populations. We recommend that a full description of such actions be included within the document, especially in regard to the preferred alternative. For example, we are interested in whether specific areas will be managed for fish and wildlife purposes like widespread areas are managed for timber production, and where such areas would be located in California. Letter 63, 69.



Response: Some of the more important guidelines are located in the Appendix. Management direction is to maintain or create a diversity of habitats, from early succession stages to the climax old-growth forest. This will be favorable to the more than 250 different wildlife species, as each one has its own specific habitat preferences and requirements. Management Area 1 is designed to produce many resources, not just timber. Conflicts are inherent among most uses under a multiple-use concept. It is not possible to achieve a maximum output of one resource where significant quantities of other uses are being produced under multiple-use management.

116. Comment: Although we believe the document acknowledges the Siskiyou National Forest's responsibility to properly address cultural resources as set forth by Presidential EO 11593 and the Advisory Council's guidelines (36 CFR Part 800), it would appear to us that this is a responsibility which has not previously been adequately discharged in a manner consistent with the above referenced federal directive and guidelines. We would ask that the Siskiyou National Forest submit on a continuous basis all cultural resource assessments for proposed undertakings within the planning unit in order that the State Historic Preservation consultation provision of the Advisory Council's guidelines may occur as prescribed. Letter 63.

Response: Qualified archeological Technicians field survey the areas proposed for any ground disturbing activity to verify that the proposed project will not disturb any historical or archeological sites. To date, no historical or archeological sites have been found that would be destroyed by a project activity. This is documented during the specific project environmental assessment. If a site is eventually found, proper measures will be taken to avoid the site or to mitigate any adverse effects of the undertaking.

117. Comment: The DEIS should provide a more comprehensive and objective impact evaluation of the proposed transportation system. Road design and location will have a major impact on water quality and runoff patterns because of the steep terrain and generally unstable soils. Letter 69.

Response: Accelerated erosion (i.e., erosion beyond the natural rate) occurs during and after road development and timber harvest activities. The increase is usually relatively large the first year and then rapidly diminishes over the next few years to levels approaching natural rates. Levels then tend toward the natural rate in an incremental process covering a number of years. (Landslides triggered by unusual weather and in excess of the natural rate prevent a steady linear decrease.) Activities intermediate in a 90-year rotation cause some additional periodic increases. However, the net effect over a rotation is a relatively small increase in erosion rates. When timber harvests and road construction are well-dispersed (spatially and temporally) over a Unit (as they are under Forest Service policies), the impact on any given watershed also tends to be small.

The magnitude of the increase depends on the characteristics of the particular area and the techniques used in accomplishing the activities. Techniques which cause major disturbance of the soil surface in erosion-prone soils can cause tremendously high levels of accelerated erosion. That is one of the reasons why the Soils Management Policy (see Appendix) and other policies require techniques capable of minimizing impacts at acceptable levels in these areas, despite the higher costs usually incurred.



118. Comment: Page 132, Table VI - 2. This table shows several apparent conflicts. The preferred alternative plans an additional 390 miles of roads in the planning unit but the projected sediment load is less than the present situation. This is not consistent with past experience. Also, the preferred alternative's proposed reduction of old-growth timber and snags would not realistically result in an increase in old-growth dependent wildlife species and cavity nesters. Letter 69.

Response: We agree. The tables are corrected in the FES.

119. Comment: Page 79, Table T-1. The table of endangered and threatened species should include the northern spotted owl. Letter 69.

Response: Table T-1 is a list of the Federal Endangered and Threatened species (see last paragraph page 78, DES). The 5th paragraph on page 78 notes that the northern spotted owl is listed by the State of Oregon as threatened.

120. Comment: Page 48, paragraph 3. The comment that "There should be little conflict with wildlife management since use of forage by cattle is only computed for slopes of less than 45% and the forage production on steeper slopes was not considered" is questionable. We suggest there could be a conflict with wildlife since deer feed extensively in areas with less than 45% slope. The conflict would be reduced if livestock were removed from the range early enough to allow regrowth prior to winter deer use. Letter 69.

Response: The point was that the estimate of available forage is conservative. We agree that common areas will be grazed by wildlife and cattle. Management plans reflect wildlife needs. See comment and response 87.

121. Comment: Page 48, paragraph 4. This paragraph implies that summer range is not a critical element for maintaining wildlife populations. In many situations, particularly on the west side of the Cascades, the summer and winter ranges occupy the same geographic area. Consequently, the amount of forage remaining on the summer range is the key to the productivity of the winter range. We believe both range types are equally important for the welfare of big game populations. Letter 69.

Response: Agreed. Local biologists state that winter range is the key for wildlife in the Illinois Valley area. Domestic stock utilization is conservative. See comment and response 87.



December 12, 1978  
P. O. Box 367  
Fort Jones, Calif. 96032

William H. Covey, Supervisor  
Siakiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 96032

Dear Mr. Covey;

This is in response to the book recently published by the Forest Service, Chetco, Grayback Planning unit.

Page 238 Response by alternative.

Reasons given in support of opinions expressed of times suggested. Topic 13 quote( Miners have already damaged Kalmiopsis) "I".

I am not quite sure just what it all means but I wish to turn back the pages of the G. P. Courier and records of the Forest Service to find and quote the facts and realities of an era in our nations history that was not as bright as it should have been. "1942". and following years when our nations economy was trying to straighten up again.

To be specific in this instance the finger has been pointed directly at me. But in response I say that what was accomplished there in regard to exposing the existence of a possible abundance of minerals to make future generations more secure "I AM PROUD".

An abundant source of minerals are the very first life blood of any nation including our own and with us it is a guarantee that our society as we wish it to be will continue for generations to come. Take away one mineral like chrome as we have here and our society would revert immediately to a period in history long before Christ. Civilization advanced only as fast as the people learned to work metals.

In the most advanced laboratories it takes many many years to develop processes of extraction of these many minerals and in the instance as we have here it has been over 50 years on the nickel, cobalt and chrome. It also takes millions upon millions of dollars in research, exploration and development.

The Kalmiopsis is one of the highest mineralized areas in the continental U. S. Gold, silver, platinum, nickel, cobalt, chrome and copper are found abundantly on the surface.

World War II was almost lost by the U. S. and Allies because the German U. Boats were sinking just the chrome ships destined for U. S. ports from Turkey and Rhodesia in 1942. 63 ships out of 67 that started went to the bottom. Each and every ton of chrome that arrived in the U. S. cost in dollars over \$2,000.00 beside all the lives that were lost in sinking ships and also there was a cost of the ship.

Forest Service.

Every bit of this and fact is recorded in the congressional records. Without chrome we could not manufacture anything needed in the war effort. We would not even have kitchen appliances. At the end of 1942 the U. S. had just 3 months supply of chrome left for use at the steel mills.

Every lb. of chrome from Oregon and California helped very much to save our nation. A fact everyone should think seriously about.

The chrome on the Kalmiopsis is directly responsible for the concrete bridge at the mouth of the Josephine over the Illinois River.

It was a mineral access money appropriation to the Forest Service to build this bridge because it was proven by Gov't. agencies as the U. S. G. S. Bureau of Mines and also Forest Service knowledge of the timber resources in the area that it was necessary to have a bridge for the development of all resources on the West of the Illinois River. Both mineral and timber by private and the Forest Service

Mr. Hershell Obee was supervisor and Mr. Don Camaron was the Forest Service Engineer. During the War both of these Forest Service officials had given the Miners 100% support to help them mine another ton of chrome needed so badly by our nation.

In making application for mineral access money it is the law that the application starts with some one or organization within the mining industry.

I made the application for the money through the Bureau of Mines and directed toward the Dept. of Commerce.

I had a camp established West of Canyon peak. Dr. Francois Wells of the U. S. G. S. and Mr. Jones of the Bureau of Mines and Mr. Camaron of the Forest Service walked to our camp and we spent the better part of 2 days looking over the area. We waited all the mineral deposits that were within walking distance for this length of time.

All signed the application as being a very desirable project. The application was approved without any delay and the Forest Service gave a contract for the bridge.

Sometime in the future, perhaps not to distant there will be a shortage if not a crisis on many minerals. Congress will then know that visionary thinking will destroy us and that reality has to be given a chance if our society as we want it will survive. That many places like the Kalmiopsis has to much of what is needed to sustain the economy of our nation and that they must undo the great wrong that the people were hoodwinked into believing.

Yes, just turn back the pages of the Courier and the Forest service records to get a lot of truths. A lot we just would like to forget. But we know history has a way of repeating itself. Let the first lesson be enough.

Sincerely  
W H Covey



LETTER 2

UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
Klamath National Forest  
Yreka, California 96097

REPLY TO: 1950 Draft Environmental Statement

SUBJECT: Chetco-Grayback Planning Unit

TO: Forest Supervisor, Siskiyou NF, R-6

December 5, 1978



We have reviewed your recently released Draft Environmental Statement for the Chetco-Grayback Planning Unit. We have a few specific comments. They are:

1. Siskiyou Roadless Area (06701) - We realize that this document was well along when RARE II decisions were made. We assume that you will be delineating the area recommended for wilderness in RARE II and display that area in the final E.S.
2. We could not determine in our review if timber yield was calculated at full 100% yield for all commercial forest land in Management Area 1. There appears to be many subareas within this area that would produce less than 100% full yield of timber; i.e., retention foreground areas.

Thanks for the opportunity to review the Draft Environmental Statement.

*J. D. MacWilliams*  
J. D. MacWILLIAMS  
Forest Supervisor

LETTER 3

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

# Memorandum

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
610 East Fifth Street  
Vancouver WA 98661  
DATE: December 15, 1978

In reply  
reference to: File: 510

SUBJECT: U. S. Forest Service  
Draft Environmental Statement  
Chetco-Grayback Planning Unit

FROM: James N. Hall, Director  
Office of Federal Highway Projects  
Region 10

TO: Mr. William H. Covey  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 97526

We have received your Draft Environmental Statement for the

Chetco-Grayback Planning Unit. Our review indicates that no Forest

Highways are involved within the planning unit boundaries, and, therefore, we have no comments.

We appreciate the opportunity to review the document as it emphasizes inter-agency coordination so important in the environmental processes.

*Robson L. Adkins*  
By: Robson L. Adkins  
Deputy Director



4227 N.E. Flanders  
Portland, Oregon 97213  
December 18, 1978

Mr. William H. Covey, Supervisor  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

We have had the opportunity to review both the Revised Draft EIS for the Rogue-Ilinois Planning Unit and the Draft EIS for the Gletco-Grayback Planning Unit, and wish to comment on them in one communication. Please make our remarks a part of the official record.

First, it is our understanding that, under terms of a Congressional agreement reached when the Endangered American Wilderness Act of 1978 (HR 3454) was passed, essentially all of the remaining roadless areas not included in the Kalmiopsis Addition or Wild Rogue Wilderness would be minutely examined in a special study to determine their suitability for wilderness designation. In view of the lack of detailed analysis of these roadless areas in these two documents, can we assume that this Congressionally-directed investigation will proceed before final land use plans for them become effective? Could we please be informed about when these studies will commence and may we also be placed on the mailing list to receive future information on their status?

We disagree fundamentally with the Forest Service preference for Alternative D land management in these two planning units. We strongly urge that Alternative B essentially be chosen, which with some modifications would protect multiple use wilderness values in most of the present roadless areas. Alternative B would not only be the most environmentally sound alternative in the long-run. The Forest Service's preferred alternative is clearly a decision for one-shot commodity extraction at the expense of long-range optimal resource use. This is completely unacceptable and is tantamount to the kind of blind decision that resulted in the drowning of Glen Canyon in Arizona-Utah a decade ago--a decision widely supported until it was too late to stop the sacrilege. Barry Goldwater now says that if there were one vote he would change if he could, it would be his vote in favor of that dam. Oregon's public leaders would do well to think before they leap and support the destruction of the Kalmiopsis.

The Kalmiopsis and associated roadless areas constitute the last chance for a truly sizable "wilderness" in the original meaning of that word, in Oregon outside the Cascades and Willows. As pointed out in the Rogue-Ilinois DEIS, the legendary Bob Marshall, as a U.S. Forest Service employee, first proposed a very large (400,000 acres) wilderness for this area over 40 years ago. His prescient vision should be acknowledged by designating almost all of the remaining roadless areas as wilderness--adding almost 1/3 of a million acres to the existing kernels of the Kalmiopsis and Wild Rogue. The importance of this area botanically makes its preservation in a natural state even more significant.

Mr. William H. Covey  
December 18, 1978  
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The analysis of economic effects of the alternatives is seriously defective and biased. It suggests, for example, that there would be an approximate 25% drop in timber harvest-related employment (relative to the present and assuming intensive management) in both areas if all roadless areas were designated wilderness (the total jobs lost would be 606). But these figures pertain to these planning units only and therefore do not place potential employment changes within the appropriate context of the total local economy. That is, what would this effect be on overall local employment? Indeed, maximizing timber outputs on already roaded areas would increase local timber employment by 45% (494 jobs) and 31% (361 jobs) for the Gletco-Grayback and Rogue-Ilinois, respectively, without sacrificing irreplaceable wilderness.

These calculated employment effects (and the related cost/benefit figures) for timber harvests ignore the adverse economic (i.e., employment) impacts of logging on other uses of the roadless areas, uses which do not degrade future economic potential through emphasis on immediate profit. For example, decreased fishery production under Alternative D relative to Alternative B, for both planning units combined, is estimated at 7,800 fish. What is the economic value (in terms of jobs, etc.) of this 5% reduction? There are methods available for converting such data into monetary and employment terms so that these existing and potential commodity outputs of roadless/wilderness areas are adequately evaluated.

Another conspicuous way in which the economic benefits of roadless/wilderness areas are undervalued is through the use of visitor-day statistics for aggregating recreation use. Despite the considerable body of economic literature that can be used to estimate economic values of different kinds of recreation, no attempt has been made to do so. Why not? It is well-known among recreation-economists that wilderness-type recreation experiences are more highly valued. By using gross numbers of physical bodies as the basic unit of measure for recreation values, the analysts have submerged the economic importance of wilderness recreation.

Another way in which "existing visitor day" statistics are invalid is that they do not reflect trends in recreation demand for, for that matter, the absolute inelasticity of supply of wilderness. Fifteen years ago the notion of thousands of rafters creating an important business in the Rogue basin would have been regarded as absurd. The growth in demand for wilderness recreation generally, and of rafting in particular in the past decade, has been phenomenal. The Kalmiopsis Wilderness experienced a visitor day increase of 2300% in 11 years (400 to 9,200). So the fact that some parts of the existing wilderness and roadless areas are lightly used may be irrelevant with the huge increases in use one can expect in the future. And unlike non-wilderness recreation, there are not a superabundance of sites where that kind of activity can be pursued. Wilderness recreation will be increasingly valuable economically from the standpoint of its historical demand/supply relationship, and yet there



## LETTER 4 (cont'd)

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little indication of any effort to assess this economic value, now or in the future. For example, what is the economic contribution of local rafting outfitters, and what is their potential? What about the existing cabins and lodges? Considering the size and rugged character of these areas, what is the potential for a horsepacking business ala the High Wallows? None of these questions appear to have been asked by the analysts who developed the two DEIS's, but without answers to them, their overall economic evaluation can only be regarded as very inadequate. Associated changes in the DEIS's are also required, as on p. 134 of the Rogue-Ilinois DEIS, where it is erroneously stated that Alternative E will have no overall effect on recreational opportunities relative to present trends.

A truly woeful oversight of the two DEIS's is their manifest failure to adequately assess the biotic resources of the two planning units. Wildlife, timber, and range are evaluated separately, and there are appendices referencing special floral areas (which do not always provide adequate location information). But there is little in the way of a comprehensive analysis of the unique botanical characteristics of this region. It is our understanding that botanical surveys, if not transects, were being conducted last summer, yet there are no maps of the distribution of the rare and endemic species, nor of the ranges of species with their northernmost location (e.g., Redwood, Canyon live oak, etc.) or southernmost location (e.g., Western red cedar, western hemlock (?), etc.) here. Considering the significance of this area for the intermingling of northern California and Northwestern species, as well as its endemic plants (e.g., Kalmiopsis lechiana, Brewer's spruce, etc.), it would be highly valuable to preserve as much of the existing vegetation as possible for scientific research. The DEIS's do not indicate, however, the ranges of the species involved. Indeed, in some cases where unique flora are identified, there are no proposals for any kind of special management protection (see #40, Appendix E, Chetco-Grayback DEIS, the largest Brewer's spruce in the world). The plants found in these two units ought to be a prime determinant of land use management, but the data necessary for rational decisions has not even been compiled.

The Wildlife sections of the two DEIS's should be modified by inclusion of the wolf (*Canis lupus*) as possibly being present in the area. A note similar to that regarding the wolverine would be appropriate, with inclusion in the associated tables (e.g., wildlife classified as endangered, etc.). A wolf, verified by the Smithsonian Institution, was killed along Wheeler Ck. in the western part of the Chetco-Grayback Unit in December, 1977. Although no wolf had been taken in the area since 1913, the evidence about this animal and the wilderness characteristics of the two planning units suggest that a remnant population of native wolves may exist. Without intensive field surveys it may be some time before the origin of the killed animal can be known with certainty. In the meantime, *Canis lupus* must be at least tentatively listed.

In terms of a general summary of the effects of the alternatives (in reference to the State of Oregon's planning goals -- Table VI-1 in both DEIS's),

## LETTER 4 (cont'd)

Mr. William H. Covey  
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the documents seem to be very erroneous in their assessments. For example, Alternative C-E are shown as supporting the economy goal while Alternatives A & B are not supportive. As we have indicated in some detail above, conclusions about the economic effects of the alternatives are premature, and at the very least all of the alternatives should be shown as having a weak or uncertain effect. It is even more clear that the allegedly positive effects of Alternative C-E on the following goals is 180° opposite of what should be indicated:

Open Spaces, Scenic and Historic Areas, and Natural Resources  
Air, Water and Land Resources Quality  
Natural Disasters and Hazards  
Recreational Needs  
Energy Conservation

Roading, logging, and mining existing natural areas in the two planning units will have demonstratively negative effects in all of these areas. Much of this is already documented in the DEIS's (e.g., increased sediment loads in streams). Table VI-1 for both of the DEIS's will have to be substantially revised to reflect the actual impacts of development, and so will the associated summary descriptions (e.g., pp. 149-50 of the Rogue-Ilinois DEIS). Indeed, once this assessment is made more objectively, the superiority of Alternative B becomes apparent.

Before analyzing some areas more specifically, we should note that the citizen involvement aspect of Forest Service planning for these areas requires a major improvement. Hearings in Portland, the state's largest city and place of residence of many users of the area, should be required in future planning. It is hardly only people living within a few miles of the areas who have a stake in the land management decisions. In fact, it should not be forgotten that local residents opposed the very creation of the Siskiyou National Forest! Sometimes only the far-sighted are foresighted.

### Chetco-Grayback Planning Unit

Within this unit, it is most imperative that Roadless Area #6709 (South Kalmiopsis) be added to the existing Kalmiopsis Wilderness to protect the southeastern part of a large, rugged, botanically unique natural area. The existing and future timber resource over this large roadless area is generally meager, as indicated in the mapped data in the DEIS. Low to very little timber volume now exists over almost all of the R.A. #6709 southeast of the existing wilderness except for minor pockets in the upper headwaters of Baldface Ck. and north of Josephine Mt. Future timber production over this area will also be relatively low (see Figure 0-3, pp. 61-64).

The DEIS discussion of mineral resources and potential mining in R.A. 6709 is insufficiently precise to guide a decision to irrevocably commit the area. The map (p. 27) of mineral activity and deposits conveys little useful information and the accompanying text is also unenlightening. While it



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confesses that deposits are of low grade and processing would be a difficulty, it expresses a vague hope that economical techniques are just around the corner. It makes a preliminary estimate of total net tonnage and gross value of the ores--all of which is rather irrelevant outside the context of extraction, processing, and transportation costs, which have for long discouraged significant mining activity. There is a basic public policy question which goes begging with regard to large-scale mining here: just because it would benefit private entrepreneurs and some local segments of the economy, is that the only test such activity should meet before being allowed? And while the potential private profitability of mining is still an open question, so is the level of probable adverse effects on other resources (e.g., water pollution, fisheries impact). Promises of a "nonpolluting" process have an extremely dubious history. With regard to the issue of national security and the availability of mineral ores from domestic sources, it should be enough for those seeking to justify mining in such areas as the South Kalmiopsis to analyze the scandalous history of the 1950's stockpile program and the serious technical research on the theoretical problem to be quickly disabused of the notion that this area would be of any consequence whatever.

The inherent conflict of mining with many other land management objectives (in roaded areas) needs to be acknowledged rather than verbally swept under the rug by classic bureaucratic gobbledegook such as that on p. 28: "Possible conflicts with most other forest resource objectives can be adequately reduced through coordination among parties and careful analysis and planning prior to commencement of activities..."

It should also be clear that a measure of smallscale mining, such as exists within the existing Kalmiopsis Wilderness near Emily Cabin, for instance, while not entirely compatible with wilderness designation, should not in itself preclude preservation of the area from large-scale development. R.A. #6701 (Siskiyou) and R.A. #6708 (Packsaddle) also deserve wilderness protection. The upper headwaters of the E. Fork Illinois and N. Fork Smith should be especially protected because of their botanical resources (eastern occurrence of the Brewer's spruce and northern extension of redwoods, respectively), fishery production and contribution to moderated seasonal stream flows. The Siskiyou R.A. needs to be considered for wilderness designation with the adjacent roadless areas to the south.

#### Rogue--Illinois Planning Unit

Within this unit it is most imperative that Roadless Area #6176 (North Kalmiopsis) be added to the existing Kalmiopsis Wilderness to the south in order to create one of the largest, most unique wilderness areas on the entire continent, with rugged white-water canyons and a great mixture of Northwest/California plants. With the enormous increases taking place in river rafting, the Illinois has to be counted among the precious few areas where some increased use can be sustained without damaging the experience

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from over-congestion. But full protection as wilderness, which makes the canyon less easily accessible by the entire population, is indispensable to maintenance of such quality.

As with other natural, unlogged, unroaded areas, the excellent fishery production of this unit, and especially the relatively high water quality which makes it possible, are dependent on undisturbed slopes. This is especially critical throughout both of these planning units because of the extremely steep slopes and thin soils which characterize them.

Mineral resources are negligible throughout the roadless areas of the Rogue-Illinois Planning Unit, as shown in the map on p. 25 and the miniscule production figures itemized on p. 23. The only spatial concentration that ought to be of any relevance for wilderness designation is that along Silver Ck., which already has some roads. The comments about the potential "strategic" worth of nickel and chromite ores made under the Chetco-Grayback discussion above should be reiterated here.

The value of the North Kalmiopsis for timber production, while somewhat greater than that for the South Kalmiopsis in the Chetco-Grayback Planning Unit, hardly justifies destruction of wilderness multiple use resources. Existing volume of timber in R.A. #6176 is relatively low or nonexistent over huge areas, with only a few pockets of high volume. Long-term timber production potential is relatively low over the whole area except for parts of the Indigo Ck. drainage basin.

The Potato Mountain Roadless Area (#6174) deserves wilderness designation to protect the only remaining fragment of natural area along the Rogue River Canyon outside the Wild Rogue Wilderness. Though its long range timber potential is moderate, the existing volume is relatively small. With the great proportion of the canyon already roaded, this additional segment urgently needs preservation.

The Shasta-Costa R.A. (#6175) is a small watershed that can still be kept in a natural condition. Current timber volume is relatively low and long-term production potential is only moderate. The stream is important for its fishery production and also exhibits a sharp elevation drop of almost a mile from Brandy Pk. to the Rogue River.

We look forward to major changes in the preferred Forest Service alternative based on significant improvements in the analysis as suggested here.

Sincerely yours,

*Larry M. Svart*  
Larry M. Svart  
della N. Svart

cc: Senator Robert Packwood  
Senator Mark Hatfield  
Congressman Jim Weaver  
Congressman Bob Duncan  
Governor Victor Atiyeh  
President Jimmy Carter





U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
REGION NINE

Two Embarcadero Center, Suite 530  
San Francisco, California 94111

ARIZONA  
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TEXAS  
UTAH  
VERMONT  
VIRGINIA  
WASHINGTON  
WEST VIRGINIA  
WISCONSIN  
WYOMING

December 21, 1978

IN REPLY REFER TO  
HED-09

Mr. William H. Covey  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

We have reviewed the Draft Environmental Impact Statement on the proposed Land Management Plan for the Chetco-Grayback Planning Unit, Siskiyou National Forest for transportation impacts in Del Norte County, California, and have no specific comments to offer.

We appreciate this opportunity to review the subject Draft Statement.

Sincerely yours,

*Mitchell Tanner*

Mitchell Tanner, Acting Director  
Office of Environment and Design

P.O. Box 384  
Wilsonville, OR 97070  
26 December 1978

William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, OR 97526

Dear Mr. Covey:

I support alternative B for the Chetco Grayback and Rogue Illinois planning units. When I visited these areas I was impressed by the large amount of untouched wilderness in these units and I believe these areas should be given statutory wilderness protection.

Thank you for the opportunity to comment on the Land Management Plans for these units.

Sincerely,

*David Hough*

David Hough



TAKILMA CITIZENS ACTION COMMITTEE

Proposed management plan for the Upper East Fork Illinois River portion of the Chetco-Grayback Planning Unit.

INTRODUCTION

The Takilma CAC is a committee of five members who are elected annually from the Takilma area. Our purpose and responsibilities include the review and evaluation of government land use plans affecting our area. Forest Service lands on the Grayback planning Unit virtually surround our Valley, so a land-use plan for the Chetco-Grayback unit is relevant to the Takilma area's land-use concerns.

This TCAC land-use plan is not comprehensive. Rather we are recommending particular allocations and management methods, constraints, and directions affecting our local Takilma citizenry and resource base. The area we are covering with this proposed plan consists of the upper East Fork Illinois River watershed, from Elder Creek upstream. This area will be referred to as the "Upper East Fork Illinois River watershed or drainage" throughout this plan.

PROPOSED PLAN

- A. Allocation of East Fork Illinois River from the Siskiyou National Forest boundary upstream and main stem Dunn Creek as fisheries/watershed areas.
- B. Allocation of certain major tributaries as special treatment/watershed areas. These tributaries are Elder, Little Elder, Page, Chicago, N. Fork Dunn, Poker and Black Creeks.
- C. Re-evaluation of remainder of Upper East Fork Tributaries in regard to Stream Management Unit (SMU) classification.
- D. Strong visual safeguards for "seen areas" from the Takilma Valley floor.
- E. Discontinuation of herbicide use in the Upper East Fork drainage and an aggressive program testing the feasibility of non-chemical site preparation and release techniques.
- F. Pilot programs for the Upper East Fork drainage testing the feasibility of:

1. Utilizing more of the "un-merchantable material" from harvest sites.
2. Marketing of more small sales including small volume sales, salvage sales, pole sales, fence post sales and firewood sales.
- G. An intensified program of resource monitoring and data collection and compilation for the Upper East Fork drainage.
- H. A study to evaluate the benefits of, and possibilities for, a research natural area for the Grayback Planning Unit area.
- I. Official recommendation from the Siskiyou National Forest to the Intra-forest planning team of the Siskiyou Planning Unit, endorsing a non-development allocation of Roadless Areas 701 and 601.

SPECIFIC MANAGEMENT DIRECTIVES AND CONSTRAINTS FOR THE ABOVE PROPOSED PLAN

- A. The fisheries/watershed allocation will maintain a 1/8 mile horizontal distance from streams in a near-natural condition. Primary management goals will optimize fisheries, watershed and wildlife values. No extensive road building or timber harvesting will be allowed in the corridor. Existing roads will be maintained if: 1) they receive significant use and 2) they are up to a standard that insures minimal adverse impacts on the fisheries, watershed and wildlife resources. Major roadways in the fisheries/watershed area will be subject to stringent maintenance requirements that will benefit the fisheries and water resources. Some small scale timber harvest, especially salvage harvest and firewood gathering can be allowed, but at low levels. Snag (dead tree) densities will be kept high.
- B. Special treatment-watershed areas will be managed as Class I Streams. In addition they will have a SMU corridor of three chains width on each side of streams. As many snags as possible will be retained, with consideration given to the danger factor. A minimum of 50% of the commercial timber will be retained in the Special Treatment-Watershed zones. The "leave trees" will be representative of all age classes at roughly the same proportion they naturally occur. Trees with defects, in difficult positions to fell or yard, very close to the stream bed and in snag patches can make up a large percent of the "leave trees". Of the streams listed for Special Treatment-Watershed allocation, only those sections classes as perennial will be included for allocation.



C. This re-evaluation of SMU classification for Upper East Fork tributaries will consider that the critical stream area for domestic use starts at the intake point and moves upstream a considerable distance. This distance depends upon a variety of factors including hydrological conditions of, and soil movement in, the particular watershed.

D. All vistas from the Takilma Valley floor will be protected under the Siskiyou National Forest Visual Management System. Hope Study Areas 80-01 and 80-02 are crucial as Hope Mountain is such a prominent feature from the north and south ends of the Valley. Hope Mountain will be given full-retention protection and no roads or harvest units visible from the Valley floor will be allowed. "Seen areas" from Takilma Road and the East Fork should be classes Sensitivity Level 1.

E. Self-explanatory.

F. Self-explanatory.

G. We particularly want studies in our area monitoring and compiling data on:

1. Water quality and quantity.
  2. Sedimentation levels, soil loss, soil mass movement and channel erosion.
  3. Reproductive success of harvest units.
  4. Broadcast burning and its effects on soil movements and soil productivity.
  5. Nutrient recycling.
  6. Fish and wildlife populations.
- H. Self-explanatory.
- I. Self-explanatory.

#### RATIONALE FOR PROPOSED PLAN

A. The Upper East Fork Illinois River and Dunn Creek provide vital spawning grounds for winter steelhead. Chinook salmon also utilize the grounds. The fisheries/watershed allocation will safeguard and upgrade the critical habitat involved and hopefully allow an increase in spawning fish - particularly salmon. In terms of watershed and water quality protection, this allocation will help insure that riparian vegetation that was damaged from the 64 flood, can re-establish with minimum disruption, allowing the water channel to stabilize.

Also, fisheries/watershed areas will optimize wildlife, recreational and scenic values. Takilma residents will utilize and appreciate this corridor.

B. The special treatment-watershed areas will provide more protection to watershed and fisheries values than a simple Class I SMU status. The tributaries involved are major ones that are important influences on the main branch of Dunn Creek and the East Fork. This allocation will seek to balance watershed, wildlife, fisheries and timber values in the critical stream bottom sites.



C. Much of the SMU classifications are out-of-date and need revision. Also, the importance of anadromous fisheries streams upriver from the barrier needs to be more carefully considered.

D. Most Takilma residents want the views from our Valley floor to remain up to present conditions. Hope Mountain is appreciated as an unspoiled view and is so "close-in" that any harvest site or roadway would be unsatisfactory. Its slopes are in view along the whole of Takilma Road from the junction of Takilma Road and Happy Camp Road to a bit beyond Page Creek Road. Page Mountain scenery is a mess; efforts should be made to keep future activities from dominating the landscape. The more distant views (south) of large peaks are also important.

E. Most of the residents of Takilma Valley consider herbicides dangerous toxins that directly threaten our families' health. We believe that these chemicals pose a substantive threat to the surrounding environment and its forest soil productivity. We do not consider these chemicals harmless or short-lived, even at low usage levels. We are relatively well informed on the many facets of this issue and are not satisfied that the Forest Service position is responsible or diligent.

F. 1) Utilization of more wood from harvested units would help meet demands for saw-logs, pulp wood, bio-fuel and cord-wood from our National Forests and would raise forest-related employment.

2) Often the District Forest Service office hasn't the money or time to help the "regular folks", but they are busy laying out million board foot sales for million dollar businesses. The employee hours and funds should be available to help local people purchase small sales: pole sales, fence post sales, firewood sales and the like. This will prevent some good wood from rotting on the stump or on the ground and will result in better utilization of forest benefits, especially for local residents.

G. An intensive system of data gathering plus an efficient, meaningful methods of compiling said data is an important part of properly practiced forest management. The more local the data used, the more valuable and applicable the findings. Many residents of Takilma are curious about the state of our forests and want a high caliber of forestry practiced on our watershed.

H. The Grayback Planning Unit seems different in understory community, moisture levels, elevation range, etc. than other parts of the Siskiyou National Forest. A research natural area in this portion of the forest would be invaluable as a management tool, supplying baseline data usable throughout the Grayback Planning Unit. Is such an area available? A potential area should contain a whole minor drainage (or the upper portion of one), be relatively natural and be representative of the Grayback Unit forest types as much as possible.

I. The Roadless Area 701 of the Siskiyou National Forest will be "planned" along with approximately 200,000 contiguous roadless acres in the Klamath and Six Rivers National Forests. This roadless area is very much appreciated by a majority of the local residents and is used considerably as a place to camp, fish and hunt. The parts of this roadless area in the Siskiyou National Forest are also the parts in the East Fork Illinois drainage. A nondevelopment allocation for Roadless Area 701 will best protect watershed, fisheries, wildlife, scenic and primitive recreational values and will leave future options open. This area is very damage prone, with low timber volumes and timber-growing potential and is hard to reforest, according to Forest Service information.

#### Conclusion

This plan for the Upper East Fork Illinois drainage portion of the Chetco-Grayback Planning Unit is officially recommended by the Takilma Citizens Action Committee. We feel that this plan aptly incorporates the wishes and values of a majority of the Takilma residents.

The TCAC would like to maintain an open, cooperative dialogue exchange on a regular basis with both district and supervisor's office, as well as the planning team and resource specialists. These exchanges would give us a chance to discuss forestry and land-use matters concerning Forest Service lands in the Upper East Fork Illinois watershed.

Thank you for the opportunity to submit this plan and for your consideration.

*Romain Grogan for the  
Takilma Citizens Action  
Committee*



LETTER 8

WILLIAM H. COVEY  
SISKIYOU N.F.  
P.O. Box 440  
GRANTS PASS, OREGON  
97526

Box 7391  
GAFB, TX.  
76903  
JAN. 2, 1979

I HAVE STUDIED THE DEIS FOR THE PROPOSED PLAN  
FOR THE CHETCO-GRAYBACK PLANNING UNIT OF YOUR  
FOREST.

I STRONGLY DO NOT AGREE WITH THE DECISION TO  
SELECT ALTERNATIVE D AS THE PLAN. I THINK THAT  
ALTERNATIVE C WOULD PRESERVE THE NATURAL VALUES  
OF THE UNIT MUCH MORE THAN ALT.D. ADDITIONALLY,  
COMMODITY OUTPUT LEVELS WOULD BE PRETTY MUCH  
MAINTAINED UNDER ALT.C AND MOST OF LAND WITH  
HIGH POTENTIAL FOR MINERAL DEPOSITS WOULD BE  
ACCESSIBLE UNDER C.

PLEASE RE-CONSIDER THE TENTATIVE DECISION TO  
PICK ALT.D AS THE PLAN.

YOU HAVE MY CONTINUED SUPPORT.

*Joseph C. Schott*  
JOSEPH C. SCHOTT

LETTER 9



William H. Covey, Super.  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, OR 97526

Dear Sir,

Without referring to previous studies, the data outlined from  
page 82 thru page 138 was carefully gone over and an Alternative selected.  
We were pleased to find that our choice agreed with that of the Siskiyou  
Forest staff, that Alternative D is the better balance of values for  
the implementation of action in the Chetco-Grayback Planning Unit.

In management Area 4, Scenic Rivers, we will support some  
expansion of trail construction and improvement. And expansion of  
primitive camp sites, especially in the Illinois Falls area as a  
trail-head. With similar facilities near the junction with the  
Rogue River. Can we assume adequate access to the Kalmiopsis Wilderness  
in the Whetstone Butte area will pass thru the upper section of this  
Unit?

In recent years the edges of clear-cut units have received  
new emphasis under Visual Management. Has the thought of a band of  
shelter-wood cutting on the unit periphery been considered? This  
could more nearly approximate natural meadow clearings, where there is  
no exact demarcation line evident.

With recent action relating to Wilderness moving to the Congressional  
level, further comment here is needless. However, we will support a  
decision to leave Roadless Areas at the discretion of District Managers  
where it can be more responsive to changing needs. Continued 'look-up'  
of resources is infringing upon the options of future generations.

Thank you for the opportunity to comment

Sincerely

*Joseph C. Schott*

Information Officer  
Oregon Council of Rock & Mineral Clubs

HAROLD M. DUNN  
6121A E. 10TH ST.  
SPRINGFIELD, OR 97477





Department of Energy  
Bonneville Power Administration  
P.O. Box 3621  
Portland, Oregon 97208

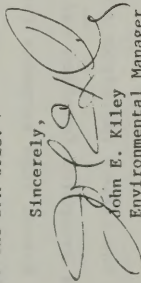
Enclosed, please find S.I.

Mr. William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

BPA currently has no transmission or substation facilities in the Chetco-Grayback Planning Unit, nor do we plan to construct any in the next ten years. However, several potential hydroelectric dams are mentioned in the Draft as well as five Corps of Engineers pumped storage sites; mention should be included in the Final EIS of the need for transmission easements, lines and access roads to connect these generation sources to the BPA Grid.

Sincerely,

  
John E. Kiley  
Environmental Manager



Forestry Department  
OFFICE OF STATE FORESTER  
2600 STATE STREET, SALEM, OREGON 97310 PHONE 378-2560

January 9, 1979

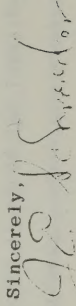
Mr. William H. Covey  
Forest Supervisor  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

We appreciate the opportunity to review your Draft Environmental Statement for the Chetco-Grayback Planning Unit.

Our Forest Resource Study Team has reviewed the plan and has come up with a few suggested points for clarification. We hope these comments will be useful to you in development of your final plan.

Sincerely,



J. E. Schroeder  
State Forester

JES:zs

cc: Executive Staff  
Area Directors  
Fred Robinson  
Board Members  
Pat Amedeo  
State Clearinghouse (#7811 4 800)



## Response To

CHETCO-GRAYBACK PLANNING UNIT  
DRAFT ENVIRONMENTAL STATEMENT  
SISKIYOU NATIONAL FOREST

The Oregon State Department of Forestry has completed its review of the Siskiyou National Forest Chetco-Grayback Planning Unit Draft Environmental Statement (DES). Comments concerning this DES fall into three categories: Economic Impacts, Draft Alternatives, and Specific Questions and Comments.

Economic Impacts

Forest lands and the timber therefrom are basic to the economies of Curry and Josephine Counties and to the life styles of county residents. Forest land accounts for approximately 94% of the land base in these two counties. Of the forested acres, the Federal Government and the Forest Service in particular, owns almost 50% of the commercial timber acres in these two counties. Thus, the Forest Service is a leader in timber management and the major provider of timber supply to the local economy.

Alternative D, the Forest Service preferred alternative in this draft, shows a slight decrease in timber supply from the present level. This decrease occurs at a time when predictions are that under present policies and actions, the South Coast and Medford timbersheds will experience 35% and 18% declines in timber supply, respectively, after the year 1995.<sup>1/</sup>

<sup>1/</sup>Beuter, John H., K. Norman Johnson, H. Lynn Scheurman, Timber for Oregon's Tomorrow, January 1976, Oregon State University Forest Research Laboratory, Research Bulletin No. 19.

Implementation of the preferred alternative would result in serious economic impacts on the local area both in the short and long run. The establishment of a "ceiling" or 55 million board feet per year in the next decade would effectively prohibit increases in timber harvest from Forest Service lands in future decades under the even-flow concept. Any reduction in timber harvest eventually results in job reductions, this in an area of Oregon where unemployment traditionally is higher than state and national averages.

A more immediate impact of decreasing timber supply is reduced taxes to local government. Curry and Josephine Counties are highly dependent on federal revenues for local government financing, much of the federal revenue being in the form of in-lieu of tax payments (Table C-7, page 15).

With these thoughts in mind, the Oregon State Department of Forestry recommends that the Siskiyou planning staff formulate a draft alternative for public review that increases timber harvest from the Chetco-Grayback planning Unit. One possibility for increasing timber supply in southwest Oregon is the alternative suggested by the Board of Forestry in the "Forestry Program for Oregon".<sup>2/</sup> The Forestry Program for Oregon asks for only a moderate increase during the next couple of decades so as to maintain current levels of timber harvest and related benefits.

<sup>2/</sup>Forestry Program for Oregon, Phase I, Oregon State Department of Forestry, April 1977.



Draft Alternatives

The Chetco-Grayback DES states: "Although there are an unlimited number of possibilities, these alternatives were selected and evaluated because they represent a wide range of land management options." (Page iii, emphasis added) Resource Study Section review of the alternatives did not find this to be the case.

The "no-change" Alternative A is not a viable alternative because: "Under this alternative, 'no action' would be taken to develop a comprehensive land management plan." (Page 105) It is a well-known fact that land management planning must occur on all lands within the national forest system within the national forest management guidelines.

Alternative B, the wilderness alternative, is not reasonable in that all roadless areas identified in the RARE II study are recommended for wilderness management. The RARE II question will ultimately be decided by Congress, and it seems highly unlikely that all roadless areas in this unit would become wilderness. Also, the adoption of this alternative would reduce the harvest by one third, resulting in serious effects for the residents of Curry and Josephine Counties.

Alternatives C, D, and E are all basically the same with only minor output variations. To illustrate, several output categories from Table VI 2, page 132, are compared:

Output Categories	Alternative Potentials			
	C	D	E	
Current Timber Harvest (MBF)	54,000	55,000	58,000	
Water (Acre-Feet)	2,729,500	2,764,700	2,831,900	
Range (Animal Unit Month)	2,960	3,000	3,360	
Roads (Miles)	1,120	1,180	1,230	

Resource Study Section review concludes that two of the five alternatives in this DES had major flaws, leaving the public three very similar alternatives to choose among. The Department of Forestry feels the public deserves a reasonable range of alternatives, each of which is feasible and objectively displayed.

Specific Questions and Comments

J. Roadless areas within this Planning Unit constitute a substantial portion of the land base. There are 171,058 RARE II acres out of the land base of 464,712 or 36.8%. RARE II acres contain 29.4% of total unit standing volume. When Congress decides which areas will be wilderness, the Department of Forestry suggests that a new set of alternatives be distributed for public review, one of which approximates the "full potential" for timber production. Also, the Department of Forestry recommends that roadless areas designated for the "further study" category not be used when calculating the annual harvest levels or that an alternative without the "further study" areas be included for comparative purposes.

2. Substantial increases in wilderness in this part of the state cannot be justified. "Compared to other wildernesses, the Kalmiopsis is lightly visited." (Page 49)



3. Large old-growth timber stands cover 156,379 acres, or 33.6 percent of the unit land base. (Page 50, Table 0-1)

"The old-growth currently existing on the unit ranges in age from 160 to 400 years old. Most trees in this age class, which is the bulk of the programmed harvest, show signs of overmaturing to the point that their growth has slowed, they are vulnerable to wind damage, and they are susceptible to insects and disease attacks . . ." (Page 61) The Department of Forestry recommends that these old-growth stands be converted under an accelerated schedule so that they can be intensively managed to meet growing state and national timber demands.<sup>3/</sup>

4. Dispersed forms of recreation are not incompatible with timber harvesting. In fact, timber harvesting and related road construction will enhance dispersed recreational activities such as opening new areas for hiking, fishing, and driving for pleasure.

5. Analysis of draft alternatives would be facilitated if in addition to management area allocation categories the regular land classification categories of standard, special, and marginal were used.

6. How do visual management standards (i.e., variety classes and sensitivity levels) affect timber management and harvest levels?

7. What effect will protection of threatened and endangered plants and animals have on overall management activities within this unit and the Siskiyou National Forest? For example, when and how will protection standards be applied in the case of the northern spotted owl?

<sup>3/</sup>Seaton, F. A. (Chairman). 1973. Report of the President's advisory panel on timber and the environment. U. S. Government Printing Office, Washington, D.C. 541 p.



# Wildlife Management Institute

709 Wire Building, 1000 Vermont Ave., N.W., Washington, D.C. 20005 • 202 / 347-4774

DANIEL A. POOLE  
President  
L. R. JAHN  
Vice-President  
L. L. WILLIAMSON  
Secretary

January 8, 1979

Mr. William H. Covey  
Forest Supervisor  
Siskiyou National Forest  
Post Office Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

The Wildlife Management Institute is pleased to comment on DRAFT ENVIRONMENTAL STATEMENT, CHETCO-GRAYBACK PLANNING UNIT, Siskiyou National Forest, Oregon and California.

We have reviewed the plan carefully and are familiar with the area.

Selected Alternative "D" is about the usual resource mix to be expected and should provide protection to most wildlife species. However, some changes are needed if it is to be satisfactory from a fish and wildlife standpoint.

The five-percent decline in anadromous fisheries predicted on page 141, 6, a, is not acceptable, given the present precarious position of anadromous fish throughout the Northwest. A Forest land management plan should provide for enhancement and increase, not a decline. This predicted decline is not shown on Table VI-2.

We appreciate that 24 percent of the unit will be left in old growth (p. 120). However, most will be in wilderness and other special areas. There is no assurance that typical commercial forest land will be represented, with its generally better soils and more moderate slopes. Some land allocations in an extended rotation should be made in the commercial area.

Some specific comments follow:

p. 35, 4th paragraph. Only a small part of the fish values in the watershed are assigned to the planning unit. In most areas, the most valuable spawning grounds are located on National Forests. More explanation is needed here.

p. 80, last paragraph. A very good statement on diversity needs.



Mr. Covey

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January 8, 1979

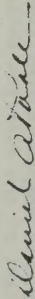
p. 132, Table VI-2. What is the source of the potential output figures? It is not possible to see the predicted decline in anadromous fisheries. How is it possible for old-growth species and cavity nesters to increase under Alternative "D" in view of the continuing conversion of older forests?

p. 270. Two State Geologists participated in the plan. We believe State Fish and Wildlife Biologists also should participate.

Most of our comments would be unnecessary if adaptations of the Blue Mountain Wildlife Habitat Guidelines were available for this part of Oregon. We urge this be done.

These remarks have been coordinated with William B. Morse, the Institute's Western Representative.

Sincerely,



Daniel A. Poole  
President

DAP:15b

UNITED STATES DEPARTMENT OF AGRICULTURE  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20250

JAN 5 1979

## OFFICE OF EQUAL OPPORTUNITY

IN REPLY  
REFER TO:

8140 Supplement 8

SUBJECT: Chetco - Grayback Draft Environmental Statement

TO:

William H. Covey  
Forest Supervisor

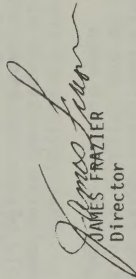
THRU:

William Williams, Associate Deputy  
Chief for Administration, FS

We have reviewed the draft statement for its treatment of impacts upon the minority population in the affected area.

It appears that the minority population is small and that any decrease in employment as a result of the preferred management alternative will be slight. We therefore concur in the plan's statement that minority groups will experience no significant effects.

Thank you for the opportunity to review the Chetco - Grayback Draft Environmental Statement.



JAMES FRAZIER  
Director



LETTER 14

INSPIRATION DEVELOPMENT COMPANY

1000 BIRLE WAY - SUITE 60  
RENO, NEVADA 89502

(702) 322 6754

January 15, 1979

Mr. William Covey  
U.S. Forest Service  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

I would like to express my thanks for being given the opportunity to comment on the Chetco-Grayback Draft Environmental Statement.

I feel that Alternative E should be the preferred alternative in light of the nation's increasing dependence on imported mineral resources. It should be noted here that the Soviet Union is our major source for several of these commodities, particularly chromite and cobalt.

Additional wilderness or other non-development designations are certainly not warranted in this planning unit, especially when one considers the low use of the Kalmiopsis Wilderness and percent of the Siskiyou National Forest already in wilderness classification. It appears that existing wilderness areas are more than adequate to supply current and future demands. It's unfortunate that the Kalmiopsis Wilderness, which is so lightly used, was created at the expense of several known mineral occurrences.

Results of a recent survey conducted by Yankelovich, Skelly and White, a very reputable national opinion research organization, indicate that of those people who indicate a preference for additional wilderness areas, many do not comprehend what the definition of a wilderness includes. For example, a majority of those questioned believed that the following activities are permitted in wildernesses: developed campgrounds with sanitary facilities, recreational activities like skiing, sightseeing by car, harvesting trees and exploration for minerals and oil. One-third of those

LETTER 14 (cont'd)

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interviewed also believed that mining, motorcycling and jeeping are also allowed in wilderness areas. I believe that this information should be taken into account when public response to these alternatives is considered.

There are aspects of Alternative E which are not acceptable to those of us who believe that development of our natural resources is in the country's best interests. The Hoover Gulch, Management Area 9, is a highly mineralized area, encompassing several old gold-copper mines and prospects. Some of our samples assayed over one ounce per ton gold, which is certainly of interest to a "small miner" and possibly also to a small company. Although it has "been proposed to reserve an example of a mixed-evergreen forest", it seems obvious that mixed-evergreen forests are much more common than mineral deposits and an effort should be made to select a non-mineralized area.

That portion of the Illinois River which is being considered for Scenic River designation, contains many gold placer deposits. The land should be maintained in a multiple-use category.

Thank you again for an opportunity to comment. I would like to remain on your mailing list.

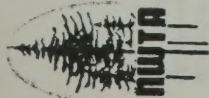
Sincerely,

*Joyce Hall*

Joyce Hall, Geologist

JH:dh





## NORTH WEST TIMBER ASSOCIATION

1355 OAK STREET • P.O. BOX 5554 • EUGENE, OREGON 97405  
TELEPHONE: (503) 686-9903

Mr. William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, OR 97526

Dear Bill:

SUBJECT: Draft EIS--Chetco-Grayback Planning Unit

On behalf of North West Timber Association I am pleased to submit the following comments regarding your Draft Environmental Impact Statement for the land use plan on the Chetco-Grayback Planning Unit. Our Association consists of small, independent manufacturers of lumber and plywood who are almost exclusively dependent on Federal timber sources. Several of our members operate on the Siskiyou National Forest and within the Chetco-Grayback Planning Unit. For this reason we are very concerned and interested in your planning activities.

Generally I have found the planning document well written, thorough, and quite complete. With some exceptions we would like to go on record in support of Alternative D in the plan, the preferred alternative. We do have concern over the loss of 3,000M in current harvest and of 5,800M in potential harvest which reflects the difference between the preferred Alternative D and Alternative E, the so called commodity approach. There is some question in our minds whether or not the land allocations which cause this reduction are necessary in order to meet the other output goals and stay within management constraints. We believe this is particularly significant considering the major reductions in harvest which have occurred recently due to the expansion of the Kalmiopsis Wilderness Area.

Before detailing our concerns and our proposed action regarding the plan I would like to discuss some general areas of comment and concern.

### PROCEDURES AND APPROACH

I would like to express approval of the procedure used in presenting a preferred alternative. By establishing a preferred alternative it permits the reviewer to identify closer the conflicts that may exist and to present more constructive criticism.

The concept used by the Siskiyou Forest of separating the forest into a number of planning units does cause some concern. It is difficult for the reviewer,

William H. Covey

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January 12, 1979

such as ourselves, who are concerned with a broader picture, to properly identify what the effect of the unit plan will be on the over-all forest. On page 140 you indicate that Alternative D will "essentially maintain the existing economic situation". While this may be true of that portion of the economy dependent just on this planning unit it does not reflect the effect of, for example, the expanded Kalmiopsis, or reductions that may occur on planning units adjacent to this one. In short this planning unit and its effect on many outputs, including economic, is an integral part of a much larger unit and considering it in a vacuum such as has been done does not always produce the best results.

Another area of general concern is that the timber management planning process has not been completed for this unit or for the forest, and thus the reviewer can deal only with current harvest levels or with potentials. We do not know at what level we can actually anticipate harvest levels to be. It is our philosophy that land use and timber management planning are more effective and can be reviewed more meaningfully if they are completed as a single plan or at the same time.

The planning process and its relationship to the RPA goals is also an area of general concern. While you have made an attempt to reflect how your plan will meet certain levels of RPA goals these are done in very broad terms with no specific values attached. We recognize this is not the fault of the forest in that the forest has not been assigned specific goals; and therefore, cannot assign specific goals to the planning unit itself. However, we feel that in order for RPA goals to be a meaningful tool the Forest Service should allocate the goals to forest levels in measurable terms and these goals should in turn be allocated to districts or units. Then and only then, can the plan reflect how well it can accomplish various Resource Planning Act objectives.

### ECONOMICS

In reviewing the Socio-Economic Analysis Section of the report, I was concerned with the procedure in which the employment multipliers were developed. A number of assumptions were required and because of the very critical importance of these numbers I felt that possibly a site specific research effort may have been justified to establish the actual multipliers. This is especially important since the multipliers were used in the analysis of the various alternatives to establish the effect any alternative would have on the labor market.

I was also concerned with the prediction mentioned several times in the EIS that there would be a significant reduction in timber related employment in the not too distant future. As discussed this would be a function of a combination of reduction in timber supply and productivity increases due to automation. It would seem that the timber supply function, to a large extent, will be a result of activities that the Forest Service and other government agencies undertake. I seriously question the statement made on page 21 that "...60 percent of the projected 45 percent employment reduction would occur due to the productivity increases necessary for the industry to remain competitive." This statement is footnoted to a 1973 study done by Brian Wall of the Pacific North West Forest



William H. Covey

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January 12, 1979

Range and Experiment Station. His work was based on taking automation trends occurring over a prior ten or fifteen year period and simply projecting the rate of increases in productivity forward to the year 2000 or beyond. While significant strides have been made in automating timber processing in the past twenty years, I am far from confident that similar productivity increases can be expected in the future. These projections completely ignore factors such as the increased need for labor in the woods to meet the growing site specific environmental and silvicultural activities being required. It also does not consider the ability of industry to economically manufacture both lower grade and smaller material that has developed in recent years. Indeed the extent to which the timber industry decreases in employment and as a factor in the community will depend largely on decisions that are made by the forest manager as well as by the manufacturing manager.

#### WILDLIFE

On page 80 of the EIS, in discussing non-consumptive uses of the wildlife resource, a statement is made: "Although no figures for non-consumptive use are available for the planning unit, the 1970 national survey of fishing and hunting showed that for every day a hunter spent in the field, four other individuals were bird watching or photographing and are observing wildlife in general." I found this statement to be on the verge of unbelievable and feel that it should have been footnoted as to source and some discussion included as to whether there was any data which would indicate that this statistic applied to the Siskiyou National Forest or the specific planning unit.

Also, on page 80, in the final paragraph there is a section concerning the necessity to maintain a diversity of habitat for wildlife indicating:

- 1) Habitat should not be in isolated locations; and
- 2) The forest should not be maintained in a fully regulated condition with stands evenly distributed between ages 1 and 100.

This statement was editorialized in its content and again some documentation should have been presented to support the statements made or the statements should not have been placed in the EIS. The portion of the statement regarding age class distribution is directed at "old-growth-dependent wildlife species" but, the statement fails to define old-growth-dependent wildlife species or to identify what species are being referred to. While it is known that some species such as the Spotted Owl appear to desire an old growth situation it has not been proved, to my knowledge, that the species are indeed dependent on such specific habitat. It would seem that with 24 percent of the planning unit either in wilderness or to be managed in an undisturbed type environment more than enough habitat is provided to ensure the continued existence of these so called old-growth-dependent species.

William H. Covey

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January 12, 1978

#### FISHERIES AND STREAMSIDE MANAGEMENT

North West Timber Association is a strong supporter of the multiple use concept, and we support the necessary policies, actions, procedures and land allocations to assure a satisfactory water supply and to maintain the very important fish habitat. It is the function of the streamside management policy of the forest to assure that operations are carried on in such a manner as to meet the goals for water and fish habitat. The advances in directional felling and timber sale requirements as well as timber sale planning have shown on the Siskiyou National Forest that the water and fish habitat goals can be met without foregoing the timber potential completely along the majority of the streams within the Forest. In light of this I am somewhat amiss as to the necessity for Management Area #6, the fisheries watershed areas. It appears that this designation is approaching the point of creating a no-cut quarter-mile corridor along the effected streams without justification shown in the EIS for necessity of restrictions beyond the normal streamside management policy.

#### DISPERSED RECREATION

The land classification in the preferred alternatives which is of the greatest concern to our organization is that of Management Area #2, Dispersed Recreation Area. This area proposed will equal some 10,000 acres which will be managed to essentially retain the existing natural qualities and as a result will yield a 70 percent reduction in the timber potential from the area. The necessity for this classification is not clear. This is especially true when one remembers that the Kalmiopsis Wilderness and the proposed wild and scenic river provided a vast lightly used area of completely natural environment. While there are some areas in the unit which we considered ideal for a dispersed recreation type management, these areas were unfortunately included in the Kalmiopsis Wilderness expansion. The same quality of experience that will be enjoyed by the visitor to the dispersed recreation area could be obtained from within the other classifications including the coordinated resource management areas. This can be accomplished by preparing and planning for such use and maintaining minimum development campsites within the fully managed portions of the forest. It is not necessary, to withdraw 10,000 acres from timber management as is done with Management Area #2. In short the unique features and natural beauty to be enjoyed by the public in the Chicago Peak, Polar Bear Mountain and Windy Valley areas can be maintained, enjoyed and utilized by the public without this land allocation.

#### CONCLUSIONS AND RECOMMENDATIONS

In examining the section entitled "Identification of the Preferred Alternative", it is our conclusion that something closer to Alternative E could meet the rationale used for selecting Alternative D. While we fully understand the restrictions you operate under due to such things as the existence of the Kalmiopsis Wilderness, the proposed Wild and Scenic River Area and the other special areas



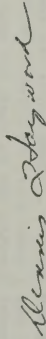
William H. Covey

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January 12, 1979

we must question the necessity for some or your land classifications such as, the special fisheries watershed areas, and more importantly dispersed recreation. We believe that the effects of the large additions to the Kalmiopsis and other restrictions within the forest should have been more fully considered before making the additional land classifications which reduce the current and potential timber harvest.

Sincerely,



R. Dennis Hayward  
Field Forester

bjw

Dear planners:

I almost didn't bother responding to the Chateco-Grayback DUS. I've responded to so many others with seemingly no effect on the decision making process that it feels like folks with views similar to mine are simply labeled "extremists" and ignored. But what the heck, I guess there's no harm in trying. Is there?

First of all, I realize where you stand. As planners you are squeezed between the enormous weight of the timber industry and the intense anger of a few "environmentalists." Knowing this you have decided on alternative "d" which will supposedly ~~maintain~~ maintain timber harvests at a high level, protect water quality, protect the fisheries resource, maintain visual integrity, increase all types of recreational opportunities, protect wildlife, and keep the soils out of the creeks. Good luck. Such a feat would be hard enough for superman let alone a group of frail humans. Surely you must realize that it is not possible.

I think I know what will happen instead: The old growth will continue to be cut until it is virtually gone. New trees which supposedly would take the place of the old will not be doing quite as well as we'd hoped and there won't be nearly enough of them. Many units that were cut simply



won't have regenerated because of classic "oops"-type management blunders (more on these later). Timber harvests and employment will decline. Water quality in the forests streams will decline as will the number of fish in them. A view of the mountains from most of the planning unit will resemble the coat of fur on a mangy dog-- with huge bare patches and exposed raw earth. Deer hunting will be good. All other forms of wildlife will be hard pressed.

After all this has occurred all we will hear from the managers and planners will be "Oops, gosh we're sure sorry. We really thought we could do it!" ("hoped" might be a more appropriate term. My cynicism of our ability to extract resources from the forests does not come from out of thin air. As a treeplanter for five years I have closely observed what is happening in our national forests, especially the Siskiyou. Time and time again I have planted units that had been repeatedly planted without success. In other units the trees might live but do not grow. They merely turn a sickly yellow color and survive. Such units are considered "stocked" by the Forest Service and as such are used to compute the allowable cut. Other units are so rocky that one can't even penetrate the ground with a headad and are therefore left to regenerate themselves as best they can (usually not at all).

Inquiries into why these units were ever cut in the first place usually meet with sincere and heartfelt "oops, we're sorry-~~it~~" won't happen again" from the responsible officials. They tell me that, yes, bad mistakes were made in the past but now we understand things better and can prevent them. And still marginal areas continue to be cut and refuse to regenerate. ~~px~~ This is all most unfortunate for I feel that the men and women who make up the Forest Service truly have improved and learned much in the management process. Especially the rank and file workers. However the pressures of economics, industry and politics make it impossible for the Service to run the forests as they ~~will~~ know it should be run. Let's face it, tree farming in the Siskiyou is a giant experiment. Not one crop of trees that we have planted and ourselves has ever been harvested. We have our theories, but still don't know that nutrients in the soils can be prevented from leaching away into the streams. Extremely steep slopes and torrential rainfall common in this unit should make us lean towards a rather slow but careful development policy. Instead, we rush to road the roadless areas and cut the timber now, instead of concentrating on ~~xxxx~~ more



(6)

accessible, less steep lands that are already roaded.  
Specifically, I feel that to little ~~land~~ land (indeed none) is set aside for development at a later date.  
I approve of the fisheries zones along the coastal streams but feel there is a real need for one along the headwaters of the ~~Illinois~~ river. The ~~DEIS~~ lists this stream as primarily spawning for steelhead yet I have noted an increasing number of Salmon using the river (East Fork). Further protection for the East Fork could result in restoring the salmonid population to pre-logging, hydraulic mining levels. One oldtimer said he used to use salmon in the ~~East~~ East Fork for garden fertilizer they were so common!  
One other comment: When is the Forest Service going to stop using the sexist terms "MAN-hours, MAN-days, MANEX and MAN-power"? This may seem like nit-picking to some but I know many women who are righteously indignant at this omission of the fact that they make up at least half of the human race. "Person-hours, person-days, and person-power" are more descriptive terms and one less group would be offended by your document.

Sincerely,  
Mark M. Kelz  
10398 Takilma road.  
Cave Junction, Ore. 97523

# Soil and Water Conservation District

Post Office Box 666  
GOLD BEACH, OREGON 97444

January 18, 1978

Subject: Environmental Review - 7811 4 800  
Chetco-Grayback Planning Unit  
Draft EIS

To: William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

We strongly believe that alternative E is the best solution. Adequate safeguards exist now to minimize adverse affects to soil, water, air, and visual resources. More people will reap the benefits from this alternative than from any other, especially A and B. The communities employment is already high and would be still higher if the timber base were reduced.

With the high percentage of land in government ownership, it is imperative that timber production be maintained on a high level. This will provide funds in lieu of taxes to help support the local economics. Continued transportation development, as a result of timber harvesting, will provide recreation opportunities for many people who are unable to enjoy the wilderness. More than enough land has already been set aside for minimal usage. Road-related recreation provides more for more people.

Also, hydroelectric potential of the streams in this planning unit should be seriously investigated.

*Brice Wagner*  
Brice Wagner  
SWCD Chairman



LETTER 18

1977 SE 41st  
Portland OR 971214  
January 22, 1978

William H. Carey  
Lickiyon National Forest  
PO Box 440  
Grant Pass, OR 97526

Dear Mr Carey,

I have reviewed the Peter-Grayback and the Rogue-Willamette Draft Environmental Statements. It would have made more sense to consider these units in one plan. If you had combined these two units the Kalmiopsis Willamette and the Willamette River could have been planned all at once.

Back in the appendix we find a Resource Analysis Unit chart. You have done a very poor job in displaying the information contained in a Resource Analysis. The Disolution Planning Unit has done a far superior job in relating this information to the reader. You should follow their example. They described each land type, quantified its outputs and provided a land type map. They provided a chart showing various outputs regardless of whether the area was developed forest. Please provide this information in the final.

LETTER 18 (cont'd)

The Peter-Grayback Planning Unit discusses Research Natural Areas very briefly and the Rogue-Willamette Planning Unit does not. Each land use plan should discuss every research-natural area used as identified by Research Natural Area Records in the Pacific Northwest and each possible Research Natural Area. Appendix C in each document lists Special Areas but there isn't any discussion of these areas. Please provide a complete discussion of the areas of botanical, geological, Research Natural and Historical or Archeological interest and proposed management. The Deschutes National Forest did a better job in discussing and providing for Research Natural Areas, Geologic Areas and Sensitive Areas. The Lickiyon National Forest can do a better job in the Final Environmental Impact Statement.

I don't believe you provided an adequate range of alternatives. In light of RARE II support alternative B in both planning units. RARE II would force you to allocate the non-wilderness areas in alternative B to dispersed recreation, unwaded or special interest scenic to maintain the spirit of alternative B.

Sincerely

Ted Sawyer





North Bend Ore  
Jan 19- 1979

William H Covey  
Siskiyou Nat

Dear Mr Covey

The Statement on The Chetco-  
Gray Back Planning Unit in my  
Judgment Should Go Down  
Be The Best For Multiple US This  
Has Been Out Stand  
So my vote Goes for D

Your truly  
N.D. Sonne  
President of The Oregon  
Council  
Sonne

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D. C. 20426

January 11, 1979

Mr. William H. Covey  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

I am replying to your request of November 20, 1978 to the Federal Energy Regulatory Commission for comments on the Draft Environmental Impact Statement for the Chetco-Grayback Planning Unit. This Draft EIS has been reviewed by appropriate FERC Staff components upon whose independent evaluation this response is based.

The staff concentrates its review of other agencies' environmental impact statements basically on those areas of the electric power, natural gas, and oil pipeline industries for which the Commission has jurisdiction by law, or where staff has special expertise in evaluating environmental impacts involved with the proposed action. It does not appear that there would be any significant impacts in these areas of concern nor serious conflicts with this agency's responsibilities should this action be undertaken.

Thank you for the opportunity to review this statement.

Sincerely,

*Jack M. Heinemann*  
Jack M. Heinemann  
Advisor on Environmental Quality



# LETTER 21 (cont'd)

Sierra Club  
page two

## COMMENTS BY THE ROGUE GROUP SIERRA CLUB ON THE DRAFT ENVIRONMENTAL STATEMENT FOR THE CHETCO-GRAYBACK PLANNING UNIT

The Rogue Group Sierra Club appreciates this opportunity to comment on the draft environmental statement for the Chetco-Grayback planning unit on the Siskiyou National Forest. We hope that these comments will be helpful in developing a management plan which will protect all of the varied resources, including timber products.

After reviewing the draft impact statement, it is our opinion that there are really only two alternatives from which to select a program for management. The first alternative provides for temporary or permanent protection for all the inventoried roadless areas identified in the RARE II process. The second alternative would develop these inventoried roadless areas and all other lands on the planning unit for multiple-use (logging) except for the few special interest and streamside management withdrawals which would be protected under any alternative. No middle-ground alternative is provided which might offer wilderness protection for the more desirable roadless areas along the southern boundary of the Kalmiopsis Wilderness. We feel that that the wilderness values for these areas were slighted because of the limited scope of the alternatives presented in the draft environmental statement. We believe that it would be wiser, and a more sound policy to remove the marginal timber lands from the allowable cut until such time as the technology is developed to successfully reforest these lands. The logging of these lands today would amount to timber mining, not multiple-use. This conservative approach has been taken by the Bureau of Land Management on comparable lands in southwestern Oregon, for these reasons. We feel that leaving these marginal lands in the allowable cut, distorts the values of other competing resources for the roadless areas. We also feel that it is unsound to be cutting against this timber. This leads to overcutting on our commercial timber lands, and in the long run, undermines our economy. We feel that if these marginal lands were removed from the allowable cut, that it would be uneconomical to log the isolated pockets of commercial timber found in the more desirable roadless areas, and therefore this analysis would dictate that they be managed for other than commercial timber harvest.

We feel that the fishery aspects of the planning unit has been undervalued. The headwaters of the Smith River are vital to the survival of the anadromous fishery. We can't afford to degrade the water any further in the Smith River. We feel that minimal development in these important southern Kalmiopsis roadless area watersheds is vital to balance the degradation taking place on the opposite slopes of the Smith River in the Siskiyou.

We believe that the management of non-game wildlife species as well as game species should be addressed in the proposed action plan. Each species inventoried should have its needs assessed and adequate habitat protection should be afforded to insure its survival. Old growth timber, as a resource should be inventoried and a plan should be outlined to insure that adequate old growth timber will be preserved to provide non-game habitat and a gene pool for future genetic survival.

We strongly object to the disclaimers inserted into many of the management goals and constraints for this planning unit outlined on page 84. These phrases, such as: "where practical, to the extent possible, and where appropriate," undermine these constraints and should be removed from the language of these objectives. Without the protection to the other resources provided by these restraints, we will not have multiple-use, just logging. These resources are of great value, and deserve the strongest protection.

We find that both of the general alternatives, i.e. the proposed action or the deferred action on all roadless areas, are unacceptable. We would support an alternative which includes those portions of the south Kalmiopsis roadless areas contained in the Baldface drainage into the Kalmiopsis Wilderness area. Also, those upper slopes of the drainages of Rough & Ready Creek, Josephine Creek, and Canyon Creek, should be managed to protect the wilderness character found along the Chetco Rim Trail. If mining or timber harvest is to take place in these drainages, they should be managed to protect the views from the ridge. This alternative should also include those portions of the RARE II roadless areas found in the headwaters of No Name Creek, and Sucker Creek near Oregon Caves that are in the proposed Red Buttes Wilderness, into the Wilderness System or wilderness study. This alternative should emphasize the protection of the water quality of the Smith River in the south, and the Illinois River to the east. These wilderness additions and scenic constraints would insure the protection of the most valuable of these areas, and provide a balance between the conflicting, non-compatible uses.

Much has been made of the mineral deposits found within the planning unit. We agree that these low grade nickel laterite deposits may be unique to southwestern Oregon and northwestern California, but they certainly are not unique to the planning unit or the roadless areas around the Kalmiopsis Wilderness. We feel that the management plan should assess the availability of these mineral deposits. This would put those contested deposits, found in areas which have other values, in a better perspective. We feel that this mineral resource being found in a proposed wilderness area is not a valid reason to exclude it from protection. These minerals will be available in the future in case of national emergency. We feel that until the other available deposits of these minerals are exhausted, these areas have a higher value as wilderness.

Within the draft statement for the Chetco-Grayback Planning Unit, it is emphasized that wilderness comprises 19% of the Siskiyou National Forest. It is implied that this is enough, therefore no further wilderness should be selected in the planning unit. We feel that this view is very short-sighted. If we include all of the lands in the United States, the rarity and real value of the wilderness lands come into perspective. These wilderness lands are the last few undeveloped lands on an entire continent. They belong to everyone, not just the commercial interests in the local area. Wilderness is one of our rarest non-renewable resources. We must plan wisely to insure its survival. We urge you to change your proposed action, to reflect our concerns and comments. Thank you for this opportunity to comment on this plan.

Sincerely,

*John P. Brown*  
John P. Brown, Chairman  
Rogue Group Sierra Club  
*January 25, 1979*



U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE  
SEATTLE, WASHINGTON 98101



REPLY TO  
ATTN OF M/S 443

JUN 21 1974

Mr. William H. Covey  
Forest Supervisor  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

We have reviewed the draft environmental statement on the proposed land use management plan for the Chetco-Grayback Planning Unit, Siskiyou National Forest. In general, we believe the quality of this statement is adequate and that a fairly clear relationship between environmental conditions and possible land allocations has been presented. We do feel, however, that the preferred alternative is weighted more toward commodity production than environmental values, and we recommend that an alternative be chosen which offers the potential for a higher level of water quality protection. Our specific comments follow:

1. Although it is stated that the Illinois River has been recommended for inclusion as a "Scenic" river under the Wild and Scenic Rivers Act, Figure 0.3 puts the estimated timber growing potential of the Six Mile area of the River at 70-95 cubic feet/acre/year, and notes that coordination of recreational use, timber harvest, mining, etc., will be necessary in the designated area. EPA would emphasize that non-degradation of the waters of the river in accordance with Section 12(c) of the Wild and Scenic Rivers Act is of prime importance in this Planning Unit and anticipates that the Forest Service will give priority to adherence to Wild and Scenic River objectives if the proposed area is so classified.

2. We are specifically concerned that a water quality monitoring program, an essential feature of water quality protection, is not discussed in the draft statement. The primary need for such a program is to test whether proposed management activities are effective in

maintaining a high quality environment. EPA feels that a water quality monitoring program is a necessity where intensification of timber management is contemplated, and that any major constraints on monitoring, such as lack of or low funding, should be discussed. The final environmental statement should describe the prospects for a water quality monitoring program, the parameters to be measured, and the frequency and location of sampling.

3. We commend the allocation of Management Areas 2, 4, 6 and 7 to Alternative D, the Preferred Alternative. We note, however, that these allocations involve only 4.4% (20,583 acres) of the total acreage and that timber production will also occur in the areas, although at a reduced rate. In addition, 76.1% of the area is designated as Management Area 1, an area of intensive timber management, with potential timber yield shown under Alternative D to be 117,600 MBF as opposed to the present potential of 58,000 MBF. This potential future increase in timber yield appears inconsistent with the statement on Page 118 that sediment will remain about the same as present levels and with the Environmental Effects Matrix on Page 137, which indicates that water quality will remain largely unchanged. It appears that cumulative impacts of output levels of alternatives over a period of time are not reflected. Predictions of sediment production under the various alternatives are expressed as changes from the present situation. It would be helpful if quantitative information could be presented, and if predictions of future changes in sediment production could be expressed as a percentage change from natural conditions.

4. We cannot reconcile the increase in numbers of the Pileated Woodpecker and the Yellow-bellied Sapsucker pairs as shown on Table VI-2 with the "Moderately Unfavorable" environmental rating given the Landscape, Unaltered Environment, and Protected Habitat variables for Alternative D on Page 138. We believe the loss of old growth forests in the Planning Unit would have a significant adverse effect upon the old growth-dependent species.

5. This is an area of very unstable soils and very important fishery resources. Table VI-2 shows no future reduction in anadromous fish although intensive timber management will increase timber output levels in the future, with accompanying cumulative impacts to water quality by increased sedimentation. This is inconsistent with the text which indicates a potential decline in anadromous fish production. We suggest that the monetary net loss of sport and commercial fisheries' resources be included in the final environmental statement.



LETTER 22 (cont'd)

3

On the basis of these comments, the Environmental Protection Agency has rated this draft environmental statement ER-2 (ER - Environmental Reservations, 2 - Insufficient Information). The rating will be published in the Federal Register in accordance with EPA's responsibility to inform the public of our views on proposed Federal actions under Section 309 of the Clean Air Act, as amended.

Thank you for the opportunity to review this draft environmental statement. If you have questions or would like to discuss these comments, please feel free to contact me or Craig Partridge of my staff at (206) 442-4011 or (FTS) 399-4011.

Sincerely,

*Alexandra B. Smith*

Alexandra B. Smith, Chief  
Environmental Evaluation Branch



DEPARTMENT OF THE ARMY  
PORTLAND DISTRICT CORPS OF ENGINEERS  
P. O. BOX 2946  
PORTLAND, OREGON 97208

NPPEN-PL-3

25 January 1979

Mr. William H. Covey  
Forest Supervisor  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, OR 97526

Dear Mr. Covey:

The draft environmental impact statement for the Chetco-Grayback Planning Unit, which you furnished to our North Pacific Division Office, has been referred to this District Office. We have reviewed the statement with respect to the Corps' areas of responsibility of flood control, navigation, hydropower, and permits. Our comments are attached.

We recommend you review the requirements of 33 C.F.R. 323 to determine whether a Department of the Army permit would be required for action integral to your management program. Should you have any questions in this regard, please contact our Regulatory Functions Branch, (503) 221-6995.

Thank you for the opportunity to review the draft environmental impact statement.

Sincerely yours,

*J. C. Huetter*

J. C. HUETTER  
Acting Chief, Engineering Division

1 Incl  
as stated



COMMENTS BY PORTLAND DISTRICT, CORPS OF ENGINEERS  
CHETCO-GRAYBACK PLANNING UNIT DEIS

P. 22-23

The discussion on energy resources appears rather limited in comparison with the discussion of other resources in the area. Energy resources should be given adequate consideration in developing a land use management plan for the area. The southern Oregon coast is an energy-importing area with high power transmission costs; it may become imperative to develop whatever energy resources exist in that area.

More information concerning potential hydropower sites could be included to provide a realistic picture of this resource. A map showing site locations would be appropriate as well as a table giving other information (capacity, energy, storage, etc.). Of the sites listed, several are outside of the planning unit according to our information. These include Indian Hill, Althouse, Lower Chetco River, and Deer Creek. Potential hydropower sites within the planning unit which you did not list include Redwood (T39S, R12W, Sec. 20) and Chetco River, Intermediate (T38S, R12W, Sec. 21). Of the pumped storage sites located in the planning unit, one, Pollywog Butte, would be eliminated from further consideration by the designation of the reach of the Chetco River immediately downstream of the Kalimpopsis Wilderness as a non-development zone.

The potential for wind-generated power should be more thoroughly discussed. Although windpower generation on a large scale is not technically feasible at this time, a March 1978 report prepared by the Walla Walla District of the Corps of Engineers titled "Pacific Northwest Regional Wind Energy Study" estimates that up to 10 percent of the region's energy requirements in the year 2000 could be provided by wind power with the southern Oregon coast a prime area for development.

P. 139-144

In the discussion of the rationale for selecting alternative management plan "D," no mention is made of any recognition or desire to preserve management options for existing energy resources in the area.

Jan. 27, 1979

LETTER 24

Forest Supervisor,  
Siskiyou National Forest  
Covants Pass, Oregon.

Dear Sir:

I am SE, a long-time backpacker and have hiked all the wilderness areas in Washington and Oregon.

Regarding the doubtful environmental statements of the Regan-Illinois and Chetco Grayback planning units it appears that an awful lot of marginal timberland is going to be sacrificed in order to open up some small stands of good timber. [I don't think for a minute that your full protection plan is going to get past the logging interests.] A lot of this country is steep and logging roads will just ruin the land as well as the streams and some great hiking trails, e.g. Illinois River & Silver Peak.

I don't think the timber sales will anywhere near pay for the damage. And, who is going to pay for and be responsible for the reforestation on these hill-sides - not the timber companies with their miserable record of stewardship!

You know that none of your five plans really have a middle ground - maybe you intended it that way. Anyway I think you should present another plan that considers the interests of all parties concerned.

Yours Truly,

Kenneth A. Hagyard



LETTER 25

Forrest Supervisor  
Siskiyou National Forrest

January 27, 1979

Dear Sir,

Being a citizen-taxpayer and one who makes use of our national forrest for family recreation I would like to comment on the draft environmental statements for the Chetco-Grayback and the Rogue-Illinois planning units. These statements have an unfortunate common feature which needs to be brought to your attention.

Both environmental statements have restricted the management alternatives to only two options: wide scale protection or wide scale multiple use (primarily logging and concomitant road building activities). It is seldom good practice in any management field to provide only antithetical alternatives as proposed solutions. In the case at hand where a multitude of public interests must be considered it is particularly inappropriate.

It would seem to me that a reasonable compromise between the two extremes would be one in which selected areas were protected permanently, some temporarily, and others opened to multiple use-logging. I would suggest permanent protection for such roadless areas as the southern boundary of Kalmiopsis Wilderness and along the Illinois River and the area along the Hobson Horn-Silver Peak Trail as a minimum. Temporary protection should be granted to areas difficult to log, or difficult to reforest, or subject to greater erosion potential, etc. These marginal areas should be held in reserve pending circumstances sufficiently severe to warrant their commercial use. Finally, a third category of inventoried areas should be made available for multiple use/logging on the strict proviso that such use would not have significant negative impact on the environment.

Such a well balanced management program requires much more difficult decisions and necessitates a more informed study of alternatives and their consequences than the proposed either/or solution. Additionally, such a program will satisfy neither rapacious commercial logging interests nor mindless protectionists and will thus more closely approach solutions favored by the majority of citizens.

Sincerely, *Scott Cummings*  
Scott Cummings  
1998 Fools Creek Rd.  
Gold Hill, OR 97525

LETTER 26

North Bend, Ore. 97459  
2480 Liberty St  
Jan 28, 1979

Mr. Tom H. Conroy  
Forest Supervisor  
Grants Pass, Ore

Dear Sir:

After reading the different alternatives in the Chetco-Grayback unit, I have decided that I could live better with Table V-E-1, alternative E

We also discussed this at our club, the our west Lapidary Soc. and thought this the best one. We have plenty of millrun in that area at the present time.

Sincerely  
Cecilia J. Vaines



1-27-1979

William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, OR 97526

Dear Mr. Covey,

Regarding the draft environmental statement for the Chetco-Grayback Planning Unit, my preference is for Alternative B. I feel that the most important values of the unit are in watershed, wildlife, vegetation and fisheries.

I believe there is a limit to the amount of "harvest" (minerals, timber, etc) that we can take from the land, expecting it to support more and more people. We will have to face it someday, may as well start now.

I have enjoyed reading the information in the draft environmental statements. The maps leave a lot to be desired. Thanks for considering those comments.

Very truly yours,  
Vera Stansell  
VERA STANSELL  
PO BOX 959  
GOLD BEACH, OR 97444.

Jan. 29, 1979

Dear Mr. Covey,

I've been reading over the draft statement on the Chetco-Grayback. Please mark me down as supporting Alternative B, the "total wilderness alternative". I take this position with some regret, because once again, your planners have failed to include an alternative with workable wilderness boundaries. For example, alternative C might have included ~~sa~~ wilderness recommendation for Baldface creek, giving good protection to another undisturbed watershed, without seriously compromising mineral or timber resources.

Sincerely Ogden Kellogg Jr.  
2132 Sandvine Creek Rd.  
Gold Hill, OR 97525



LETTER 29

ROUGH AND READY TIMBER COMPANY

P.O. BOX 519

TELEPHONE 503-592-5116  
CAVE JUNCTION, OREGON 97523

January 30, 1979

William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

Re: Chetco-Grayback Draft Environmental Statement

Dear Mr. Covey:

We request that Alternative E be the preferred alternative. Our only reasons for Alternative E over the Preferred Alternative are the effect on the annual Timber harvest and dispersed recreation area.

Overall, this local area has suffered sizeable reductions in available timber to support its economy through land withdrawals and the reduction of allowable cut on the Bureau of Land Management lands. We feel that this community has donated enough jobs and product loss in the name of wilderness, visual management, fisheries and so forth.

To satisfy the RPA goals of the timber productions commodity emphasis such as Alternative E is the only choice. This area has already contributed more than its fair share to satisfy the wilderness goal.

Alternative E allows for more dispersed recreation and developed recreation visitor days that the Preferred Alternative. This is very important since so much area has been designated wilderness on the Siskiyou National Forest where there is no opportunity for developed or dispersed recreation facilities to accommodate the increasing need.

*Don Johnson*  
Don Johnson  
Timber Manager

DJ/Tjp

LETTER 30



Telegram

TELETYPE UNIT (1-476-5830) 1/31/79 1421

TO: MR. COVEY

FROM: WESTERN UNION, 31, 1979

RE: SISKIYOU NATIONAL FOREST ATTN: MARY DIXON

GRANTS PASS, OREGON 97526

P.O. BOX 440

GRANTS PASS, OREGON 97526

RE: CHETCO-GRAYBACK PLANNING UNIT

DEAR MR. COVEY:

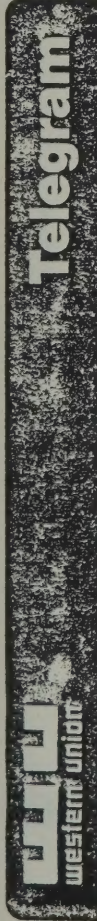
WESTERN UNION COMPANY APPRECIATES THE OPPORTUNITY TO COMMENT ON THE DRAFT ENVIRONMENTAL STATEMENT FOR THE CHETCO-GRAYBACK PLANNING IN THE SISKIYOU NATIONAL FOREST.

(END ONE)

SF-1201 (MS-69)

187-1-476-5830  
JAN 31 1979  
1421





PRC219/2

1979 JUN 13 1412:15

WE GENERALLY SUPPORT YOUR SELECTION OF ALTERNATIVE D AS THE PREFERRED ALTERNATIVE. MOST OF THE KNOWN MINERAL DEPOSITS ARE LEFT OPEN TO ENTRY AND WILL BE ACCESSIBLE FOR EXPLORATION.

THE ARACOMA COMPANY, A SUBSIDIARY OF ATLANTIC RICHFIELD HAS IDENTIFIED ROADLESS AREAS #6175, N. KALMIOPSIS; 6179, SOUW AJUTAIN; 6184, H.L. EMILY; 6702, INDIAN CREEK; 6727, N. FORK SMITH; 6706, PACK SADDLE; AND 6709, S KALMIOPSIS AS HAVING A VERY HIGH POTENTIAL FOR GOLD DEPOSITS. THESE AREAS SHOULD BE OPEN TO MINERAL ACCESS AND DEVELOPMENT. ALTERNATIVE D RECOMMENDS MINERAL WITHDRAWAL FOR AN AREA IN 38N-9W UNDER MANAGEMENT AREA 9. DUE TO THE HIGH LEVELS OF MINERAL POTENTIAL WITHIN THAT AREA, WE WOULD RECOMMEND THIS AREA BE LEFT OPEN TO MINERAL ACCESS AND DEVELOPMENT.

8F-1201 (R5-59)



PRC219/3

1979 JUN 13 1412:15

WE APPRECIATE THE OPPORTUNITY TO PRESENT OUR COMMENTS AND HOPE THEY WILL BE CONSIDERED IN THE PREPARATION OF THE FINAL ENVIRONMENTAL STATEMENT. IF FURTHER INFORMATION IS REQUIRED, PLEASE DO NOT HESITATE TO CONTACT US. SINCERELY,

J.P. MITCHELL  
PUBLIC LANDS COORDINATOR  
ATLANTIC RICHFIELD COMPANY  
555 1714 STREET  
DENVER, CO 80217  
17091000000000  
1118

8F-1201 (R5-59)



LETTER 31

January 29, 1979  
1440 N.E. 10th St.  
Grants Pass, Ore.  
97526

William H. Covey, Forest Supervisor  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Ore. 97526

Attn: Chetco-Greyback Planning Unit

Dear Mr. Covey,

I have reviewed the Draft Environmental Impact Statement for the Chetco-Greyback planning unit and would like to submit the following comments.

None of the alternatives presented, including the preferred alternative, indicate the extent or cost of new roads necessary to harvest the indicated timber resources. These costs must be considered when assigning alternative values for the best use of the roadless areas in the planning unit.

No consideration is given to the protection of the existing trail system. I believe that timber harvesting and recreational use of the same areas can coexist if more attention is given to planning for preservation of the existing trail network. Trails should be protected by adequate buffer strips where possible, and should not be interrupted by roads except where absolutely necessary. The recreational value of a given trail is enormously increased by uninterrupted length; much attention should be given to preserving this feature. Our trail system is a recreational resource that we cannot afford to ignore any longer.

The integrity of the Kalmiopsis Wilderness, Oregon Caves National Monument, and the proposed Siskiyou Wilderness should be protected by managing the adjacent areas accordingly; for example clear-cuts and roads should not be allowed to adjoin their boundaries. The headwaters of the creek and adjacent ridgetops in these areas should be included in Management Area 2, particularly where they are in low timber-volume areas.

Thank you for the opportunity to participate in the planning process.

Sincerely,

*Kurt P. Herzog*

Kurt P. Herzog

LETTER 32

# Defenders OF WILDLIFE

6101 Griffin Lane  
Medford, Oregon 97501  
January 29, 1979

Forest Supervisor  
P.O. Box 440  
Grants Pass, Oregon 97526

Dear Sir:

The following comments pertain to the two Draft Environmental Statements listed below. I appreciate the opportunity to make a few suggestions, which will be limited to those management proposals which most directly impact wildlife.

## Rogue-Illinois Planning Unit

Careful examination of the proposed alternatives reveals an all-or-nothing approach to wilderness designation versus timber harvesting. While certain areas are suitable for logging, other sections, particularly along the Illinois River, have important wilderness characteristics which should be preserved. It seems more reasonable to defer logging on marginal sites located in the roadless areas, at least until the technology becomes available to allow the harvest to take place without the necessity of roadbuilding, and until it becomes feasible to reforest these areas.

Particularly disturbing was the inadequate attention given to non-game species of wildlife in the proposed plan. If insufficient data is available to allow consideration of such wildlife, then management decisions should be deferred until the information is collected. Of particular concern are the species which are dependent upon the rapidly disappearing old growth forests. Decisions to destroy old growth habitats are virtually irreversible, but a decision to preserve them until we have a better understanding of the complex interrelationships involved in these ecosystems is always subject to revision in the future. Protection of the remaining old growth forests should receive top priority.

## Chetco-Greyback Planning Unit

Again, the inclusion of marginal timber stands in the allowable cut has presented a distorted picture of the timber values in relation to the other uses of this unit, i.e., wildlife, recreation, watershed, etc. I strongly recommend the deletion of these marginal stands from the proposed timber harvest.

Also, the consideration of the importance of preserving old growth forest habitats, other non-game species, and fishery resources is inadequate in this statement. Management decisions should be based on a complete inventory of all wildlife resources, after the critical habitats have been identified.

In summary, I would encourage you to offer a more balanced alternative in the final environmental statements for both areas discussed here. Top priority should be given to a) the preservation of roadless areas, b) the protection of old growth forests and associated wildlife species, c) the maintenance of water quality and fishery resources, and d) economical timber harvesting.

Thank you for giving consideration to my suggestions.

Sincerely,

*Sara Polonick*

Sara Polonick (NW Field Representative)  
1244 NINETEENTH STREET, NW • WASHINGTON, DC 20036 • (202) 659-9510





DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
ARCADE PLAZA BUILDING, 1321 SECOND AVENUE  
SEATTLE, WASHINGTON 98101

January 29, 1979

REGION X  
Office of Community Planning  
& Development

IN REPLY REFER TO:  
100

Mr. William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

Re: Draft Environmental Statement  
Chetco-Grayback Plan  
Josephine and Curry Counties, Oregon  
Del Norte County, California

We have reviewed the statement submitted with your November 20, 1978 letter.

We have no constructive comments to offer. Perhaps, there could be some mention of the impact on the planning unit should portions of the Illinois River be included in the National Wild and Scenic River System.

Thank you for the opportunity to comment.

Sincerely,

*Robert C. Scalia*  
Robert C. Scalia  
Director  
Seattle Regional Office of  
Community Planning & Development

1896 Willamette  
Missoula, Oregon 97501  
January 28, 1979

Forest Supervisor  
Astegyan National Forest  
Grant Pass, Oregon

Dear Sir

I would like to state my personal feeling about the "Draft Environmental Statement for the Chetco-Grayback" planning unit. I regret that you made no recommendation for a middle ground approach - something between all wilderness or all multiple use. Much of the area has been used since visiting this region doesn't seem to offer much commercial timber potential and if low grade mineral deposits are your concern then I would point out that there are areas of no potential wilderness value nearby with much more mineral value than you will find in this planning unit.

I would strongly recommend that roadless areas in the Bolefsee, Pough & Penty, Josephine, and Canyon Creeks be included in the Kalmiopsis Wilderness and/or managed to protect the Chetco River trail.



I would also mention that some areas that are within the boundaries of the proposed Red Butte Wilderness should be included in this middle of the road "alternation".

Sincerely  
Stan Mandingor

1896 Hyacinths  
Medford, Ore  
1-29-79

Forest Supervisor  
Liskiyou Nat. Forest -  
Hunts. Pass, Ore -

Dear Sir:-

This is just a note to support my husband's letter commenting on your "Draft Statement for the Chelco Dryback" planning unit -

It is unfortunate that your draft plans only are for "All Wilderness" or "All Multipurpose" use. It seems there could be a compromise that would be fair -

Your surveys must have seen how fragile this area is. Where timber has been logged off there is no regrowth of any significance. I've liked through this area & it is quite desolate -



I don't know about the minerals in this area - Perhaps with a compromise or "middle-road" plan, your Multi-purpose might have some Wilderness area set aside & still provide access to these minerals -  
Sincerely!

Leta Marchington

January 30, 1979

Forest Supervisor  
Sierrita National Forest  
P.O. Box 440  
Sierrita Park, Oregon 97526

Dear Managers,

This letter is a partial response to the draft environmental statement on the Chetco-Sagehen Planning Unit. Part of my income over each of the past seven years has been derived from forest contract work in salvage logging, slash disposal, pipeline construction and primarily tree planting in the Illinois Valley District. I also have fished most of the local rivers and streams as an avid fisherman.

In my opinion the Forest Service record of land management has not been much better than dismal at best. Over the last few years the single most positive program has been the VUM yarding program. For years treeplanters have been telling you that broadcast burns have totally destroyed soil. I do appreciate finally seeing more effort towards burning in the spring so there is less soil damage and soil erosion. Why has not the incredibly poor treeplanting yield (especially south facing slopes) been addressed for our difficult to reforest locale? Why should more areas be logged when no one has been able to successfully replant what has already been cut?

The programmed allowable cut should be less in this area because of steep, unstable slopes involved in the Illinois Valley area. How can the same



number of trees per acre be harvested on a steep slope here as the gentle slopes of the Butte Falls District North of Medford? You expect to yield out clearcuts on steep slopes because you can not get the trees out any other way. Steep, yarded clearcuts have left enough scars here. What about the number of acres transferred off the replanting backlog to non timber designation? Have these "hidden" failures been taken into account in evaluating timber harvest potential of this area?

Next let us discuss water quality and spawning grounds. I suggest you obtain the Josephine County Watermasters data on the East Fork Illinois gaging station south of Lakeview. The ratio between winter runoff and summer low flow increases as the upper watershed of the river has been logged. All this can only mean is more erosion and lost topsoil. As you well know winter stream sedimentation kills developing fry. Another piece of data that your Department overlooked was the Oregon Department of Fish and Wildlife report: Oregon Salmon and Steelhead Catch Data, 1968-77 by R. L. Barry. The following excerpt table will help clarify my concern:

	1968	1969	Steelhead	Sport Catch
Rogue River	11,513	12,885	1,976	1,977
Illinois River	1,735	2,519	14,572	11,280
			1,359	1,080

Using the Rogue River data as a comparison, I would say the Illinois River looks like it is in trouble. How can you say your future management programs will only impact steelhead and salmon by

plan is followed?

We have a lot to learn from the areas that we have not been able to reforest. Have there been any effort to predict problem reforestation sites before even deciding a programmed allowable cut in this area? As a sample of what I think is a positive approach to the problem, review Vegetative Indicators, Soils, Overstory Canopy and Natural Regeneration After Partial Cutting in the Deep Indian Plateau of Southwestern Oregon by Minore and Corbin, USDA Research Note PNW-316. The preceding paper studied old clearcuts and determined how much canopy should be left in clearing a new cut to obtain a reforestation site. Key indicator plants were found to help predict a site that could be cut and successfully reforested.

The Forest Service record is clear for all those who care to examine the history. You only need to walk thru the cuts and then into an adjacent forested area to notice the difference. When reforestation fails you can not just keep the programmed cut at the same level. We do not have a substantial yield in our forests. Alternatives A and B seem like the only way to manage this area. When we learn what areas can be cut safely, we can take another look.

Sincerely,

Tom E. Denny  
11001 Ta-Ki-Ma Rd.  
Cave Junction, Oregon



SOUTHERN OREGON RESOURCES ALLIANCE  
P.O. Box 1273  
Grants Pass, Oregon 97526  
479-4803 or 478-7415

January 31, 1979

Mr. William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

RE: Chetco-Grayback Planning Unit  
Revised draft  
Environmental Impact Statement

Dear Bill:

Our timber committee has reviewed the subject draft and reported to our board of directors by whom I have been directed to indicate their concern. It is very difficult to get a total perspective on this area. Extremely tight restrictions already exist on the Siskiyou in terms of the original wilderness designation within its boundary and the additions made by the Congress in the American Endangered Wilderness Bill in early 1978.

It is our firm conviction that this area has given enough, and that any areas appropriate for preservation have already been designated.

Our support goes to Alternative E, the Commodity Emphasis.

Again, we must respectfully request that planning efforts return to the fulfillment of the unmet goals of the Resource Planning Act. Housing and timber production both require action which has been stifled in the frantic rush for more single purpose wilderness designations.

It is clearly time for a return to production emphasis.

Sincerely,

Anne G. Basker  
Director

AGB:vhb

419 Pearl St.  
Medford, OR 97501  
June 25, 1979

Siskiyou National Forest  
P.O. Box 440  
Grants Pass, OR 97526

Re: Chetco-Grayback planning Unit

Dear Supervisor,

I feel that you should offer another alternative that would protect as wilderness study, Baldface Creek drainage, and those areas in the proposed Red Buttes Wilderness. Would give scenic protection for those most less lands along the Chetco-Pine Trail and to the East, to buffer the impact of man to the Wilderness users along that trail, and would protect as much as possible the wildlands around the Salmonopsis to prevent harassment and access to the wildlife in the area.



Page 2

I also urge you to remove the marginal timber from the allowable cut. This is a conservative approach, but I feel it is the wisest to protect other resources and our economy.

I further urge the adoption of a policy to protect roadless lands in regards to mining. This policy should promote the development of minerals resources where they are easily accessible first, in order to delay as long as possible the disruption of this wilderness and wildlife resource.

The watershed values of this planning unit is vital to the Smith river. With the logging of the Siskiyou where the timber resource is great, the water from the North will be vital to maintain the Smith's water resource. Thank you.

Rice Meyer

JAMESON DAVID SELLECK  
821 TWIN PINES CIRCLE  
ASHLAND, OREGON 97520

31 January 1979

Forest Supervisor  
SISKIYOU NATIONAL FOREST  
P.O. Box 440  
Grants Pass, Ore. 97526

RE: CHETCO-GRAYBACK PLANNING UNIT

Dear Sir:

The proposed alternatives for the CHETCO-GRAYBACK PLANNING UNIT are, I believe, generally unacceptable. They do not seem to be primarily in the public interest.

For instance, the low grade nickel deposits, while unique to this region, are not currently needed. They most certainly will be available for future use---therefore there is no excuse for wrecking a wilderness to extract them now. Another plan that conserves this resource in a wilderness area should be devised.

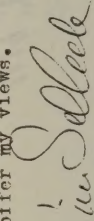
This other plan should also provide for removal of marginal timber lands from the allowable cut pending the development of means to reforest these lands. Good logging practice is definable as such only in terms of sustained yield and resource preservation. I am afraid that cutting these areas today would not constitute logging in the above multiple-use sense, rather it would be a nasty example of timber mining.

Preservation of water quality of the Smith River must be insured, otherwise fishing and fisheries will be needlessly damaged. Better habitat protection for both game and non-game wildlife should be incorporated in this other alternative. The south Kalmiopsis roadless area in the Baldface drainage should be included in the Kalmiopsis wilderness. Josephine, Canyon and Rough & Ready creeks in their upper slopes should be used to guard the wilderness aspect of the Chetco Rim Trail.

Whatever else is done in modification of the CHETCO-GRAYBACK PLANNING UNIT alternatives, deletion of phrases such as "where appropriate", "to the extent possible" and "where practical" is imperative. These blatantly permissive modifiers are an open invitation to logging and mining of the 'no holds barred' kind.

Other, more protective of wilderness areas, measures must be devised for the CHETCO-GRAYBACK region. Thank you for this opportunity to offer my views.

Sincerely,



Jameson David Selleck



Re: Chetco-Grayback Planning Unit

William H. Covey  
Forest Supervisor  
Siskiyou Nat. Forest

Dear Mr. Covey:

We have commented on every Planning Unit to date. As we review each one we get the feeling that as far as the Forest Service is concerned this extra work is a pain in the neck. That the sooner the trees are wiped out and the minerals extracted (public lands developed) the better. lately (the last 10 years) we think you have listened almost exclusively to the logging interests. This is definitely not MULTIPLE USE.

You have listed 5 alternatives but as we see it there are really only 2 <sup>temporary</sup> or permanent protection for all the inventoried RA's in this unit, and development of all RA's (logging and mining) which you call multiple use. Of course a few small special interest areas would be included in this or any alternative. We recommend that you withdraw all marginal timber lands from the allowable cut until you have a foolproof method of reforestation and thus avoid almost sure permanent injury to the land.

Much damage has already been done to the Smith river watershed and for the sake of the valuable fisheries as little development as possible is wise.

There should be an alternative which includes the Baldface drainage and upper slopes of drainages of Rough and Ready creek, Josephine and Canyon Creek to protect the Wilderness character of the Chetco Rim Trail.

We feel that protecting all wildlife species is important to our survival. Old Growth is vital for survival of many non-game species.

There is talk of strip-mining for nickel and other minerals. This is a tragic mistake environmentally. All other sources should be exhausted first and if in the future there is an emergency then mine it.

There is not much wild land left in our beloved country. Wilderness is the most "MULTIPLE USE" oriented and not a renewable resource. Lets please all we can--our last chance, and for the sake of our grandchildren.

Sincerely,  
*W.H. Covey*  
Mr. & Mrs W.R. Newby

130/78



29 January, 1979  
990 W Juniper Apt 37  
Hermiston, OR 97838

William H. Covey, Forest Supervisor  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, OR 97526

Mr. Covey,

I have reviewed the Draft Environmental Impact Statement for the Checo-Grayback planning unit and would like to express my reactions.

The discussion and description of the affected environment is generally well done and complete. One exception is the section on soils. Nothing is said as to the specifics of soil types, soil erosion and mass wasting within the unit. A map and description of these conditions is needed as these can be serious problems in the planning unit.

A map of areas already harvested and the approximate period at which they would be available for reharvest should be included in the timber section.

I have several concerns with the preferred Alternative D. It is described as a commodity-amenity blend, but I am hard pressed to distinguish any significant difference between it and Alternative E designated the commodity alternative. Under Alternative D a total of 3.4% more of the unit will be placed in special management areas geared to protection of existing environmental quality. However, these areas are still open to timber harvest and consequent potential degradation. This is not a significant difference to constitute a choice.

Alternatives A and B are direct polarizations of D and E. Although better protection is given the environment in the former, little room is given for compromise. Alternative C seems to be the only middle ground. It at least gives lip service to maintaining environmental quality and places areas which are of low timber production in special Management Area 2. Timber harvest is allowed in Area 2, but, if management goals are followed, degradation should be kept to a minimum.

I find it difficult to understand how management which simply maintains the existing habitat of an area (Alternative B) can increase anadromous fish production while management which degrades existing habitat (Alternative D) can maintain present levels of production (Table VI-2). The potential for destruction of spawning habitat due to temporarily increased sedimentation is greater than you state. Water temperature increases are probable when areas are deforested. Due to the already high summer temperatures within the unit a small increase could become fatal to salmonids. The destruction of this habitat could do irreversible damage to a spawning run. A 5% reduction in the salmonid production (as stated on page 118, section C, paragraph 5) on the unit is not acceptable in light of the present reduced population levels.

Fisheries management long ago changed from the concept of maximum yield to maximum sustained yield and have gone even farther to the concept of optimum sustained yield. Why is the Forest Service still managing timber on the short term, i.e., "to obtain full timber yield"? (page 85, Management Area 1, paragraph 1)

Under the preferred alternative approximately 170,000 acres of additional land will be harvested for timber. While doubling the amount of land presently under harvest management the potential output of timber will be reduced (Table V D-1, Table IV B-1). According to the harvest rate for the preferred alternative and the estimate of total merchantable timber (page 61, paragraph 1) the entire unit will be harvested in 82 years. This is short of the proposed 90 year rotation on land with a productivity of greater than 50 ft<sup>3</sup>/acre/year. Is this 10% difference between rotation time and complete harvest time adequate to insure reforestation and sustained yield? The data seems to point to overharvest at the present and plans for continued overharvest in the future. These figures may be considered only approximations and subject to change over time, but an explanation of this discrepancy should be included in the environmental impact statement.

It is obvious that the preferred alternative is strictly commodity oriented and gives very little room for trade-offs. The other alternatives offer little choice and cannot be accepted in a true spirit of compromise or multiple use. Some alternative should have been available with a mixture of Alternatives B and C so that it's not an all or nothing choice, but a blend of needs and uses. The amenity blends you propose are inadequate and I am forced to accept nothing less than Alternative A.



Specific comments:

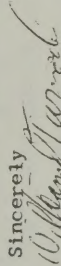
Page 84, number 8. The phrase "to the extent practical" should be deleted. Endangered species must be protected. It's the law.

Page 126, paragraph 1 sentence 2. This seems to be saying: If the long term soil productivity is altered, the long term soil productivity is protected. Clarification is needed.

Page 126, paragraph 7, sentence 2. This statement is inconsistent with the wildlife population levels for Alternative C, D and E listed in Table VI-2.

Page 128, paragraph 3. I question the validity of the statement that "economic benefits, such as jobs and income" can be irretrievably lost.

Sincerely


  
William J. Turnock

Forest Supervisor  
Siskiyou National Forest  
Grants Pass, Oregon 97526

2425 London Circle  
Medford, Oregon 97501

January 29, 1979

Dear Sir:

The Chetco-Grayback Planning Unit Draft Environmental Statement has been reviewed.

Having wandered through much of this now pleasant Chetco-Grayback country and observed the many abandoned mines, I cannot become too excited about the indicated mineral deposits. Certainly the fact that there may be some very low grade ore in this unit should not be a factor as to whether or not any portion of the unit should or should not be retained as wilderness. If our nation ever really needs the nickel, for instance, no designation of wilderness would prevent our getting it. Actually such a designation would preserve until a time of vital need, all minerals in the unit.

As I read the Statement, I had a distinct feeling throughout of bias. I also felt that I had been given no reasonable choice. It seemed to be all or nothing for the environmentalists or all or nothing for the timber interests. How about those of us in between?

As you have shown me from time to time, you have been desperately trying to reforest the southern slopes and marginal soils in Josephine County successfully. I am sure you will eventually succeed. However, until you do, it seems reasonable to leave them alone. As has been pointed out, these areas could be so ruined by tree removal that they will never come back no matter what we do.

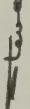
Let's keep away from our important drainages. You know them as well or better than I do. They should be kept in wilderness to preserve our increasingly important water supplies. We have ruined enough streams, rivers and lakes in our western states without doing the same to Canyon, Rough and Ready, Josephine, the Baldface drainage, and the headwaters of our fish decreasing Smith. And how about our also decreasing wild animals and birds when all the old growth trees in this unit are decimated?

In other words please provide an environmental impact statement and take determined action to insure genuine and proper multiple use for this Chetco-Grayback Unit.

Many thanks for the opportunity to comment.

Sincerely,

Copies to: Senator Mark Hatfield  
Senator Bob Packwood  
Representative Jim Weaver

  
Stephen C. Bates



LETTER 44

## HEADWATERS

*For The Protection of Critical Watersheds*

2169 Fish Hatchery Road

Grants Pass, Oregon 97526

January 30, 1979

William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Or. 97526

Re: Draft Environmental Statement Chetco-Grayback Unit

Dear Sir:

There are several outstanding drawbacks in your DES which we would like to point out.

You have listed five alternatives but in reality there are only two. A & B would both lock up the resources and C, D & E would log everything with only streamside management distinguishing one from the other. Our recommendations are for wilderness designation for both the Baldface roadless area and the upper Sucker Creek area adjacent to the proposed Kangaroo Wilderness. The remaining land should be carefully managed according to multiple use with watershed, recreation and reforestation taking priority.

BLM has altered its policy regarding marginal timber and you should do the same. Acreage should be removed from the allowable cut that posed reforestation problems. When you have illustrated that these lands can be managed for their sustained yield timber resources then you may include them in statistics related to the allowable cut. Not to do this is tantamount to timber mining, which violates management policies.

We would also like to see a recreation plan in the Final ES which will include trails to satisfy the growing demand for outdoor recreation.

Sincerely,

Alan Winter for Headwaters  
P.O. Box 113  
Williams, Or. 97544

LETTER 45



## United States Department of the Interior

OFFICE OF THE SECRETARY

PACIFIC NORTHWEST REGION

500 N.E. Multnomah Street, Suite 1602, Portland, Oregon 97232

January 31, 1979

ER-78/1182

Mr. William H. Covey  
Forest Supervisor  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

We have reviewed the draft environmental impact statement for the proposed Chetco-Grayback Planning Unit, Siskiyou National Forest. The following comments are provided for your consideration when preparing the final document.

### General Comments

We feel the DES lacks adequate specific information on proposed timber harvest, road construction, and other management activities and their probable impacts on the recreation environment. We realize the management plan and DES are intended to be broad and programmatic in nature, but we are concerned about the lack of provision for disclosure of detailed information in future environmental assessments.

Because of the magnitude of the proposed action, we feel other public agencies and citizens should have the opportunity to review and comment on specific details of environmental impacts through the NEPA process. To comply with the NEPA requirement for a detailed statement of the environmental impact of a proposed action, the specific nature and extent of probable impacts should be presented in the final statement unless there is assurance these concerns will be treated in future environmental assessments.

The document provides only one alternative addressing the wilderness issue, and it is summarily dismissed as not offering enough in the way of amenity-commodity exchanges. The Kalmiopsis Wilderness and the roadless areas surrounding it are extremely important to fish and wildlife resources, particularly endangered species. Further, the Forest Service has failed to incorporate even a portion of the above



potential wilderness areas in their delineation of management units for Alternatives C, D, and E. There are certain areas, such as the Packsaddle Mountain and Red Buttes (Kangaroo) area which deserve at least further planning status.

There is no specific treatment of options for increasing the allowable cut through intensive management to compensate for "lost" areas allotted to wilderness. In addition, the statement fails to compare the benefits associated with wilderness (i.e., benefits to fish, wildlife, water and air quality, primitive recreation, visual resources, etc.) with the benefits of developing these areas. This information is necessary to make essential management decisions for this unit.

The plan should emphasize an equitable distribution of resources while, at the same time, bearing in mind the susceptibility of wilderness to development impacts. At present, we do not see this attitude reflected in the draft statement, particularly in light of the selection of Alternative D as the preferred alternate. Alternative B or a combination of Alternative A and B would be the most beneficial to fish and wildlife, and we suggest an alternative which more clearly protects these resources.

We suggest that the statement should at least briefly summarize pertinent factors of ground-water occurrence. If ground water is used to supply recreational facilities, precautions taken to assure visitors of safe drinking water and to prevent sanitation problems should be discussed. The statement would also be strengthened by including more specific information on existing water-quality characteristics of the surface-water resources.

Except for acknowledging its existence (page 4, 8, 49, and 72 and the map on page 53), the Oregon Caves National Monument, which is an enclave within National Forest lands in the Chetco-Grayback Planning Unit, is ignored. All alternatives, including the preferred one, place the area surrounding this National Monument in Management Area 1. Management Area 1 is a general coordinated resource management area, or in other words, the least restrictive of any of the nine management areas as regards National Forest operations.

Many of the activities permitted under multiple use management can have a serious adverse impact both upon the park resources and upon visitor enjoyment of the Oregon Caves National Monument. In the past, cattle grazing and logging activities have threatened the Lake Creek water source located on the Siskiyou National Forest about two miles from the park boundary. The domestic water supply for the Oregon Caves is obtained from this source. As an additional example, trespass cattle have in the past caused damage to park trails.

In view of the potential impact by Forest Service management actions upon the unique values contained within the Oregon Caves National Monument, we recommend that the surrounding area be designated as a special management unit with its own management goals. Prior to implementation, any proposed management actions within this area need to be carefully evaluated to determine what impact they may have upon the National Monument.

At a meeting held in March 1978, Siskiyou National Forest Supervisor William Covey and Klamath Falls Group (NFS) General Superintendent Ernest Borgman agreed in principle to the establishment of a special management unit for this area. Planning responsibility for the unit would rest with the District Ranger, Illinois Valley Ranger District, and consequently with the Superintendent, Oregon Caves National Monument. We suggest that this agreement be documented in the final environmental statement for the Chetco-Grayback Planning Unit. Or lacking this special recognition, the final environmental impact statement should fully and specifically state the impacts of the National Forest actions on the Monument, including, but not limited to:

- the effect of Forest Service timber sales along or near the Monument boundary
- the effect of permitted livestock leaving the National Forest lands and entering the Monument
- the visual effects of National Forest operations adjacent to and in the vicinity of the Monument and from the access route through the National Forest into the Monument
- the effect of National Forest operations in and around the Lake Creek domestic water source for the Monument
- the effect of noise from various Forest Service operations as related to the Monument

#### Specific Comments

Page iii, Land Management Allocation Table. The tabular array of preferred alternative land allocations lacks real meaning because it lists the numbered management areas without definition. We suggest a brief summary description of objective after each number; e.g.:

Management Area 1 (Coordinated Resource Management)	76.1
Management Area 2 (Dispersed Recreation)	2.2
Management Area 4 (Scenic River Area)	1.0
etc.	



Page 4, Geographical Conditions, paragraph 3. The text would provide clarification to a reader if the "other proposed areas" mentioned in this paragraph were named. A reference to the map of those special areas (page 52) would also be useful.

Page 16, first paragraph. The counties sharing of the revenues from the O&C-formula lands is 50% of gross revenues, not net revenues, as stated.

Page 22, Energy Resources. Information on potential hydroelectric power sites has been included, and this energy resource has generally been adequately recognized. However, a few of the damsites listed are not within the planning unit, nor would they affect the planning unit lands; consequently, they could be omitted from the statement. These sites are: Indian Hill, on Hood Creek; Deer Creek, on Draper Creek; and Gilligan Lake, on Elk Creek. It would be helpful to the reader if a damsite location map or table were included in the statement. The statement should also include one other pumped-storage site in addition to the five mentioned on page 22. The Looking-Glass Prairie pumped-storage site (Corps #623) would have its lower reservoir located within the planning unit in T. 39 S., R. 12 W. Generating capacity ranges from 1,000 MW to 2,000 MW, and storage requirements range from 12,800 to 25,600 acre-feet. The lower reservoir areas range from 540 to 720 acres; consequently, the statement should be corrected to reflect this increased range of areas.

We would like to point out that in the Bureau of Reclamation's Illinois Valley Division study completed in 1964, the Sucker Creek site was identified as having potential to serve irrigation, water quality, fish and wildlife, and flood control functions. About 12,000 acres were identified as irrigable at the time. In view of those findings, the Forest Service might wish to indicate at an appropriate juncture in the statement the multipurpose capability of the site.

Investigations by the Geological Survey reveal that several other damsites not mentioned in the statement lie within the planning unit or would back water into it. These sites are tabulated below:

Site Name	Stream	T.	R.	Damsite Location		Source*
				Sec.		
Redwood	Chetco River	39S	12W	20		USGS
Clear Creek	Illinois River	37S	10W	2		USBR
Bald Mountain	Illinois River	37S	11W	162		Coos-Curry Elec. Coop.
Upper Chetco	Chetco River	38S	11W	7		Coos-Curry Elec. Coop.
Intermediate Chetco	Chetco River	38S	12W	21		Coos-Curry Elec. Coop.

Wheeler Creek	Wheeler Creek	40S	12W	20	SCS
Fourth of July Cr.	Fourth of July Cr.	40S	12W	36	SCS
E. Fork Winchuck R.	E. Fork Winchuck R.	41S	12W	3	SCS

\*Source: USGS: U. S. Geological Survey  
USBR: U. S. Bureau of Reclamation  
SCS: U. S. Soil Conservation Service

A further deficiency in the statement is the lack of recognition of power site withdrawals within the planning unit. The Geological Survey has classified approximately 9,500 acres for waterpower or water storage purposes along the Illinois River, its tributaries, and the North Fork Smith River. The lands are in Power Site Classifications 123 and 314 and Water Power Designation 14. There are applications for Federal Power Projects 853 and 1977, which withdrew lands within the planning unit. These withdrawals could be mentioned in either the section on "Energy Resources" or the section on "Land Ownership."

Page 22, footnote 4. This footnote is incorrect, as the report was prepared by the Geological Survey and the State of Oregon. It was published by the State of Oregon, Department of Geology and Mineral Industries, as Bulletin 64, and is a State Publication.

Page 28, paragraph 3. What particular methods will be used to reclaim disturbed areas? The considerations required in a detailed reclamation plan should be spelled out in order to insure that soil stability and protection of water quality are adequately protected.

Page 34, paragraph 2. Recently updated values for instream sport fishing for anadromous species are now at \$51 per angler-day. Trout fishing values are now estimated at \$12.65 per angler-day. Those figures are based on increases in the Consumer Price Index and on values supplied by the Oregon Department of Fish and Wildlife.

Page 38, paragraph 2. The interrelationships between Class 3 and 4 streams and the downstream Class 1 and 2 waters should be examined more thoroughly. The former streams, because of their smaller size and remoteness, are generally overlooked with respect to their influence on downstream water quality. However, in terms of sediment and chemical transport, they can have damaging effects on Class 1 and 2 streams. This factor can be significant if timber operations in the upper watershed are not managed properly.



Page 38, paragraph 5. The impacts on water quality from herbicide and pesticide use during timber management operations should be discussed. There is also a decided lack of specifics regarding the impacts of logging on spawning habitat, water quality, stream temperature, and flow. These topics should be included.

Page 39, Table H-1. We suggest that for clarity the numbers listed under "SMU" should be identified as being the stream classes that are described on pages 38 and 157-160.

Page 44, Land Ownership. The second paragraph contains some errors of fact concerning the O&C lands:

1. The O&C Railroad's grant lands did not revert back to the United States for failure of the railroad to "meet their obligations to build and operate a railroad in the area." The railroad company did complete the rail line and did operate the railroad for which the grant was made (the Southern Pacific Railroad Co. now continues to operate on this rail line as the successor of the O&C Railroad Co.). Instead the O&C Railroad Co. lost its grant lands for failure to abide by certain other provisions of the grant; namely, to sell the lands to actual settlers in parcels not to exceed 160 acres and at a price not to exceed \$2.50 per acre.
2. The other errors concern the lieu-tax payments to counties. The O&C counties receive 50% of the gross receipts from those lands--not the 75% of the net receipts as stated. The 25% difference is returned to the administering agency (BLM or FS) as plowback funds for resource management. The statement on page 16, first paragraph, concerning the fund distribution is correct except that the revenues shared are gross and not net revenue for those lands.

We suggest the following rewording of the second and third sentences:

The O&C Railroad's grant lands reverted back to the U. S. after the railroad failed to live up to the terms of the grant that it had received. The O&C-formula lands return 50% of the gross receipts to the counties (an additional 25% of the O&C-formula funds are returned to the administering agency for resource management). The remaining 88% of the...

Page 47, Range, paragraph 4. The AUM's mentioned in this paragraph should be compared to the maximum number the range can sustain. This section should also discuss (1) what specific types of forage have been considered for wildlife and in what areas, and (2) what methods have or will be used to prevent detrimental water quality impacts associated with overgrazing and livestock intrusion into streams.

Page 56, Soils. Inclusion of a soils map would be useful in determining possible effects from logging operations on fish and wildlife habitat.

Page 68, paragraph 1. This paragraph discusses the total planned road network for the unit. It should be noted that, as with the alternatives, impacts to wildlife will vary depending on the location, length, durability, and use of the road system. A policy to close and revegetate unused roads should be considered to protect wildlife.

Page 78, Footnotes. The footnotes are not consistent with the corresponding subject matter of the text. Also, there is no footnote "1/" reference in the text.

Page 137, Table VI-6, Environmental Effects Matrix. The symbols used in the matrix are described above the table. The symbol " " is shown for highly unfavorable. In contradiction the symbol " - - " is also designated as highly unfavorable. By a review of the data in the table we assume the " - - " symbol definition should be changed to "slightly unfavorable." - - -

This environmental effects matrix table is confusing, or at least easily misinterpreted. It is unclear why an increase in the amount of area available for mineral access (as evidenced in Alternatives C, D, and E) is deemed environmentally favorable. This apparent discrepancy should be corrected in the final statement.

Thank you for the opportunity to review and comment on this document.

Sincerely yours,

*Charles S. Polityka*

Charles S. Polityka  
Regional Environmental Officer



LETTER 46

## OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM



## STATE CLEARINGHOUSE

Intergovernmental Relations Division  
306 State Library Building, Salem, Oregon 97310  
Ph: 378-3732

PNRS STATE REVIEW

Project #: 7811

4

800

Return Date: JAN 12 1979

## ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW  
DRAFT STATEMENT

- ( ) This project does not have significant environmental impact.
- (X) The environmental impact is adequately described.
- ( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.
- ( ) No comment.

## REMARKS

The preferred alternatives are C' or A.

Agency

P. 5-53

C. J. Baker

LETTER 47

## OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM



## STATE CLEARINGHOUSE

Intergovernmental Relations Division  
306 State Library Building, Salem, Oregon 97310  
Ph: 378-3732

PNRS STATE REVIEW

Project #: 7811

4

800

Return Date: JAN 12 1979

## ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
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ENVIRONMENTAL IMPACT REVIEW  
DRAFT STATEMENT

- ( ) This project does not have significant environmental impact.
- ( ) The environmental impact is adequately described.
- ( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.
- ( ) No comment.

## REMARKS

The review of the State Foresters Office, dated 1-8-79 adequately reflects the concerns of this Department.

Agency

E. J. De

by

C. J. Baker





OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

DEPARTMENT OF CONSERVATION  
INTERGOVERNMENTAL RELATIONS DIVISION  
306 STATE LIBRARY BUILDING, SALEM, OREGON 97310  
PH: 378-3732

JAN 11 1978

P.N.R.S. STATE REVIEW

Project #: 78114 800 Return Date: JAN 12 1979

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW  
DRAFT STATEMENT

- ( ) This project does not have significant environmental impact.
- ( ) The environmental impact is adequately described.
- ( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.
- ( ) No comment.

REMARKS

I. Area Has a Plan and Approved Compliance Schedule

This project and its related land use implications must be coordinated and consistent with the local comprehensive plan and efforts to update the plan (i.e. the jurisdiction compliance schedule and work program for reaching compliance with the statewide land use goals). Consideration of the relationship between the statewide land use goal #4 (Forestry) and the project should receive special attention. In addition, the applicant should make every effort to ensure that the project makes use of recognized citizen and agency involvement programs established by the local jurisdiction in accordance with the statewide land use goals.

Agency

U.C.O.

by

John A. Mohr



OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

INTERGOVERNMENTAL RELATIONS DIVISION  
306 STATE LIBRARY BUILDING, SALEM, OREGON 97310  
PH: 378-3732

P.N.R.S. STATE REVIEW

Project #: 78114 300 Return Date: JAN 12 1979

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

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ENVIRONMENTAL IMPACT REVIEW  
DRAFT STATEMENT

- ( ) This project does not have significant environmental impact.
- ( ) The environmental impact is adequately described.
- (X) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.
- ( ) No comment.

REMARKS

The alternatives proposed are to narrow an slope. A combination of alternatives would be more logical (i.e. combining Alt B w/ Alt C, D). The proposed Alt D is not a commodity - commodity - commodity. If the statement were true "Future Options" would it substantially reduce roadless area average to implement allocation in the future. Management plan could possibly be utilized in other alternatives, there is a possibility of a future dot. We would like to command you in the case of management Area 6 in Alt the alternative. There can be the opportunity to comment.

Agency

U.C.O.

by

John A. Mohr



## OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM



## STATE CLEARINGHOUSE

Intergovernmental Relations Division  
306 State Library Building, Salem, Oregon 97310  
Phone: 378-3732

U.S. PUBLIC STATE REVIEW

Project #: 78114 800 Return Date: JAN 12 1979

## ENVIRONMENTAL IMPACT REVIEW PROCEDURES

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ENVIRONMENTAL IMPACT REVIEW  
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

( ) The environmental impact is adequately described.

(X) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

## REMARKS

pg 24. The term "inflated" is used to describe the price of gold. The price of gold is not inflated. The price has risen to its normal level after restraining controls are removed. The price of gold will never deflate to 35 per ounce.

pg 28. The State has pre-empted the USFS from reclamation control for hard minerals, under the 1972 Pinedale Land Reclamation Laws and the memorandum of agreement between the Dept. of Ecology and Mineral Industries and USFS.

pg 107, Alternative A; Page 110, Alternative B; Page 119, Alternative D; Page 123, Alternative E; Area 9 is to be withdrawn from mineral entry with a statement or of consideration of its mineral values. Under Alternative C, page 114 not only Area 9 but all Proposed Research Natural Areas would get the same treatment.

Sir,  
I have just seen the draft Environmental Impact statement for the Chetco-Grayback Planning Unit and would like to say the following —

The Baldface Creek and W. Fork Smith River drainages above Sourdough Camp are wild areas that should be kept from development and included in the Kalmiopsis wilderness area which they adjoin. Those lands are among the most beautiful in southern Oregon. The streams clean & clear and the surrounding mountains show an incredible variety of plant & animal life. To open them up to logging & mineral exploitation would naturally destroy this beauty. Also, I am sure that to capture the support of hunters & fishermen, such as a claim that the aftermath of a logging show is a renewed habitat for increased



XC: Sen. Hatfield  
Rep. Weaver

8:00 S.W. Leahy Road  
Portland, Oregon 97225  
January 29, 1979

Siskiyou National Forest  
PO Box 440  
Grants Pass, Oregon 97526

Subject: DES, Chetco-Grayback Planning Unit

Attention: William H. Covey  
Forest Supervisor

Dear Mr Covey:

Thanks for sending me a copy of this DES and I do welcome this opportunity to respond to it.

When I first looked through this DES in December, shortly after it arrived, I was troubled by the extreme polarization of the Alternatives. There were two that were quite preservation oriented, A & B; and the other three C, D, & E that were quite commodity oriented. These comments are primarily directed at the Roadless Areas in the unit which make up 36.0% of the area. When the RARE II results were announced this month, Alternatives A & B become almost the same as E as all but about 6000 acres of the 170,000 acres of the Roadless Areas became general forest. Alternative D differs from E in a very minor way and even the Alternative C allocates 76,000 areas to Management Area 2, roading and logging are still allowed so it is quite close to E. The Table VI-2 on page 132 summarizes the situation. I.e., the five alternatives are almost the same. My conclusion to the above is that this DES does not meet the requirements of the law in regards the range of alternatives to be considered in a DES and therefore, this DES need to be redone giving a reasonable range of alternatives for consideration by both your staff and the public. This is ours, the public's land and you at custodian need to examine a range of alternatives.

As for my thoughts on how parts of this Unit should be managed, I feel that Roadless Areas 6176 abd 6709 which are adjacent to the Kalmiopsis Wilderness should for at least the higher and drier parts be considered for a roadless recreation areas. Your Alternative C went part way. This would allow additional buffer to the Wilderness. I agree the designation of 6701 for wilderness and 6707 for further planning; both of these areas are part of larger areas in California.

Looking at a map of the Siskiyou National Forest, there seem to be a small strip along the eastern edge between the boundary of this planning unit and the Rogue NF which I would think would be part of this unit. It appears to be part of RARE II area 6703. I would suggest a roadless recreation designation for this strip as it provides a trail corridor from The Oregon Caves to the Red Butte area on east.

Back to the general subject of the Roadless Areas in this Unit. Most of these areas have remained roadless over the last several decades because the available timber has been quite sparse and scattered, so there are a few good pockets here and there. The question should be asked as to why the timber is sparse. From some of my own observations and studies, past fires are one reason, poor shallow soils are another, exposure to the south and west and the resultant moisture stress is a factor, brush competition keeps the small trees from getting started, etc. There are many examples in Southwestern Oregon where these and other reasons have made regeneration of clearcuts very difficult or impossible. Until enough research is done, I feel that these Roadless Areas should be put into a deferred classification so that if it does become economical in the future to log parts of these areas, that the forest can be reestablished. Since these planning units are to be looked at about every ten years, maybe the next time around, these areas could then be restudied and decisions considered then as to their best use.

Very truly yours,  
Bob Towne

numbers and species of animals,  
is a ridiculous statement since  
the variety of soils, slopes,  
exposures and natural  
habitats is so plentiful in  
this country that I couldn't  
imagine how a logging show  
would make it better.  
Let's leave these particular  
lands in their natural state  
and get our saw logs, nickel and  
chrome from lands that we already  
have made accounts to.

Sincerely

Wayne Sells



# LETTER 53

FRIENDS OF SIX RIVERS ALLIANCE (FOSRA)  
207 Price Mall  
Crescent City, CA 95531

January 31, 1979

Mr. William H. Covey  
Forest Supervisor  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, OR 97526

Subject: Response to Draft Environmental Statement for  
Chetco-Grayback Planning Unit

Dear Mr. Covey:

On behalf of the Friends of Six Rivers Alliance (FOSRA), I wish to submit the following comments in response to Draft Environmental Statement for the Chetco-Grayback Planning Unit, No. USDA-FS-R6-DES- (Adm.) 79-2. The Friends of Six Rivers Alliance is a coalition of individuals and organizations based in the Crescent City area whose interests are in the wise planning and utilization of our natural resources. FOSRA was formed during the response period on RARE II and submitted a report to the Forest Service with recommendations relative to the so-called "roadless areas" in the Northern California and Southern Oregon region. FOSRA participants have endorsed a strong policy favoring the return of Forest Service lands from the temporary wilderness category of "further study" to wise multiple use management. With these principles in mind we have reviewed the Chetco-Grayback Planning Unit Draft Environmental Statement.

In general, we found your planning document to be thorough and well written. However, we would like to suggest some conclusions which would favor a final position closer to Alternative E than to the USFS preferred Alternative D. We are especially concerned with the overkill in providing wilderness areas in Southern Oregon and Northern California, and believe that the recent expansion of the Kalmiopsis wilderness was excessive. With this in mind we do not believe that any further wilderness expansion is warranted. Neither do we believe that any areas of further study are required within the Siskiyou National Forest or adjacent forests.

We are somewhat concerned with the concept of dividing the forest into multiple planning units which make it difficult to review the overall impact. For instance, data from one planning unit might indicate favorable economic impact, while in fact the overall area is severely economically depressed due to the expanded Kalmiopsis or other planned reductions. We also find it difficult to evaluate Forest Service plans in an individual forest without knowing RPA goals for each forest. We are experiencing a similar difficulty in evaluating the planning process within the Six Rivers National Forest.

# LETTER 53 (cont'd)

FRIENDS OF SIX RIVERS ALLIANCE (FOSRA)

Mr. William H. Covey

Page 2

We believe that the conclusions drawn on Pages 20 and 21 regarding the projected decrease in employment are not substantiated or properly stated. The statement that "a projected reduction in timber supply and productivity increases will cause a 45% employment reduction in the Pacific northwest lumber and wood products industry (nearly 60% of this reduction would occur due to the productivity increases necessary for the industry to remain competitive)." is a statement that particularly concerns us. We do not know whether the 45% employment reduction figure is high or low without more substantiating data. But we do seriously question assumption that 60% of any employment reduction would be due to increased productivity. The footnoted study by Brian Wall was made in 1973 and we suspect that most of the productivity increases envisioned by Mr. Wall have already been accomplished and that future productivity increases would not nearly achieve a 60% reduction from 1979 labor forces.

We believe that the material relative to geology and minerals on Pages 23 through 28 is generally well done. We especially agree with the statement that, "with the ever increasing demand for mineral resources, this area could potentially be of very great importance." We would like to suggest that in addition to the significance of nickel and chromite in this area, there are also potential cobalt deposits similar to those in the North Fork Smith area of the Six Rivers National Forest. We believe that these strategic minerals should warrant the maintenance of all nickel laterite soiled areas in multiple use planning.

Regarding the section on fisheries on Pages 31 through 37, we believe that it should be emphasized that the fishery capacity of the area's streams and rivers are very good. We suggest that any lack of fish is more likely due to increased sport and commercial fishing and perhaps insufficient enforcement by the respective state agencies responsible for fishery management. We especially commend for your consideration a section from a recent study prepared under the direction of the California Department of Fish & Game which shows high to very high habitat ratings and spawning suitability ratings for the North Fork Smith River (copy enclosed).

Under recreation on Page 49 we note, and agree, that "compared to other wildernesses, the Kalmiopsis is lightly visited." We believe that the recent expansion of the Kalmiopsis was absolutely unwarranted and that no further wilderness areas should be considered in Southern Oregon or Northern California.

We could agree with a partial Alternative D variation to Alternative E in the category of Research Natural Areas described on Pages 51 through 53, only if the units thus set aside for special purposes were offset by an equal acreage reduction in the Kalmiopsis wilderness.



## FRIENDS OF SIX RIVERS ALLIANCE (FOSRA)

Mr. William H. Covey

Page 3

Regarding the so-called "roadless areas" described on Pages 54 and 55, we would most strongly urge that none of these areas be added to the overabundance of wilderness in this region. We feel even more strongly that no further study is required on any of the "roadless areas" in Northern California and Southern Oregon. We strongly urge that the Forest Service reverse its opinion that the North Fork Smith should go into a potential RARE II "further study" category. The North Fork Smith area contains a vast storehouse of strategic mineral resources which need to be kept in a multiple use management category for the National Defense interests of the country, as well as the economic interests of the country and the local area (balance of trade, inflation, etc.).

Regarding transportation system, we believe that there is a need for more trails in this area as well as in other Forest Service areas and we would wholeheartedly concur with the statement made in the next to the last paragraph regarding wild and scenic rivers, discussed on Pages 72 through 74. We are especially concerned with the North Fork of the Smith River. We would urge the Siskiyou National Forest to join with the Six Rivers National Forest in rejecting the plan by the California Department of Fish & Game to include this area in an all encompassing ridgetop-to-ridgetop "management plan" for the Smith River and all its tributaries. We feel strongly that there is no basis for the addition of the Smith River to the National Wild and Scenic Rivers System, and neither is there any basis for the states of California or Oregon to declare any portion of the Smith River or its tributaries as "state wild and scenic rivers".

Regarding wilderness, which is discussed on Pages 75 and 76, we have already noted that we feel the Kalmiopsis Wilderness has been overexpanded. We would further suggest that, as a minimum, any establishment of wilderness in the Siskiyou, Six River or Klamath National Forests as a Siskiyou Wilderness Area should be offset by an equivalent reduction in acreage in the Kalmiopsis Wilderness.

Perhaps the weakest statement in the entire report is found on Page 80 of the EIS which contends that there are four birdwatcher/photographer-days for each hunter-day. We believe that this statement should be stricken in its entirety unless some reliable substantiating data can be provided.

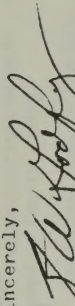
In conclusion, I would like to thank you for allowing us to respond to your Draft Environmental Statement for the Chetco-Grayback Planning Unit. Please keep us apprised of any significant developments in this regard, particularly those pertaining to the North Fork Smith area and the proposed "Siskiyou Wilderness".

## FRIENDS OF SIX RIVERS ALLIANCE (FOSRA)

Mr. William H. Covey

Page 4

Sincerely,



W. "Frosty" Godfrey, RARE II Coordinator  
FRIENDS OF SIX RIVERS ALLIANCE

FWG/nc

Enclosure:

California Department of Fish & Game letter of December 21, 1978 to Smith River Advisory Committee Members, subject of Preliminary Classification Report etc. with attachments, signed by Jerry Mensch.



# LETTER 53 (cont'd)

DEPARTMENT OF FISH AND GAME

1414 NINTH STREET

SACRAMENTO, CALIFORNIA 95814

(916) 445-0460

December 21, 1978

TO: Smith River Advisory Committee Members

SUBJECT: Preliminary Classification Report Material, Answers to Committee Questions, and Meeting Date of January 9, 1979

Enclosed for your information and comment is a summary of alternatives which are currently being considered for inclusion in the Smith River Classification Alternatives Report and answers to questions recently raised by the Committee.

There apparently has been considerable misunderstanding regarding the material previously sent. As I indicated at that time, the material was not a report accepted by the Department and was only preliminary material submitted by the consultant. Since that time, we have met with EDAM and have developed two additional alternatives. We have also received a suggested alternative from the Forest Service. In addition we have worked with EDAM to make a number of corrections in the proposed stream classifications, as you will see in the enclosed information. For example, the lower Smith has been corrected to Recreational rather than Scenic classification. This was done during the Department's review of the classification material. We have also made the corrections suggested by the Committee and are looking for additional corrections on the enclosed information, if necessary.

One additional point which apparently needs clarification is the Committee's relationship with the Department. The Committee members were appointed by the Department Director and are advisory to the Department. All requests should be directed to Fish and Game for such matters as information and review time.

The next meeting of the Committee has been set for January 9, 1979, at 7:30 p.m. in the Jury Room. At that meeting we will discuss alternative classifications and development of the public review draft of the report.

# LETTER 53 (cont'd)

-2-

The process which is underway is essentially as follows and will result in a draft classification alternatives report. We are currently reviewing the data collected by the consultant and making the necessary changes and corrections. We are looking for comments and corrections in data from the U.S. Forest Service and the Advisory Committee. In addition we have developed two additional alternatives and have received a suggested alternative from the Forest Service. These six alternatives will be included in the report along with supporting data and descriptions of resource values and problems for each tributary.

We are working towards having a public review draft completed prior to the end of January 1979. The draft will then be circulated for public review and comment. Comments received will be submitted to the Secretary for Resources for final action.

Concurrent with these actions is work on development of the draft waterway management plan. The estimated schedule of events is indicated on the enclosed chart.

I have also enclosed for your information the data on streamflow and fish habitat collected over the past 2 years. This material will also be included in the classification alternatives report as appendix material.

If you have any questions or need additional information, please give me a call.

Sincerely,

*Jerry Mensch*  
Jerry Mensch  
Wild and Scenic Rivers Program

JM:ma

Enclosures

cc: Hon. Tom Cochran

Joyce Crockett

John Diehl

Harry Miller

Mike Bond

Grant Herschkull

Ernest Perry

Joseph Harn

Gil Hard

Dr. Richard L. Perrine

Jerry Barnes

Don La Faunce

John Sneed



1. State Department of Fish and Game include tributaries on Federal  
without the U. S. Forest Service approval? (Violates Memorandum  
agreement).
- Smith River and all its tributaries were included in the California Wild  
Scenic Rivers System in 1972 by action of the State Legislature. The  
which is currently ongoing is to determine if all tributaries (based  
source values and protection needs) should be included in the Smith River  
Plan. If all tributaries should not be planned for, which ones  
be and why. To provide the basis for these decisions, EDNA and DFG  
the past 2 years been collecting data on soil, slope, vegetation,  
temperature, fisheries habitat suitability, and other factors.
- Memorandum of Understanding with the U.S. Forest Service requires DFG and  
Service to agree on classification for each river or tributary and  
whether or not they will be included in the System. Only the Legis-  
can determine the components of the Wild and Scenic Rivers System.
- was the Advisory Committee not given a complete copy of the classifica-  
report? (Chapter 3 is missing).
- Material sent to the Committee was not a classification report and was  
located in the transmittal letter. The material in Chapter 3 was  
designed to more appropriately belong in a management plan. It has  
sequently been sent to all Committee members.
- U.S. Forest Service could not make such a comprehensive management  
without completing an Environmental Impact Report. How can the State  
California make such a plan without completing an EIR?
- We requested an opinion on this matter from attorneys in the Resources  
and will forward information to the Committee as soon as it is received.
- Is the State of California have the power to make such a management plan  
general lands in the Smith River drainage?
- State of California is recognized as the owner of waters in the State  
regardless of whether or not they flow across federal lands. The State  
the right to protect and manage these waters. It has the right to  
and to the Federal Government actions consistent with protection of  
waters of the State. It is recognized that these are only recommenda-  
to federal agencies and cannot be mandated by the State.
- are the land use restrictions on and adjacent to wild, scenic and  
ational classes?
- Land use restrictions will depend on local conditions and problems and  
be specific for each river and river segment or tributary. They will  
developed as part of the Management Plan and not the Classification Report.

6. What is the distance to which the land use restrictions apply on each class  
of stream?
- The area land use restrictions may apply will be the planning boundary, if  
necessary. In most instances, land use recommendations will be different  
than existing County zoning. Only where existing zoning will allow river  
degradation will additional recommendations be made. On the Van Duzen River,  
few changes were recommended in County zoning.
7. In areas of overlapping jurisdiction, who is the lead agency? For example,  
in certain areas, the Dept. of Fish and Game's management objectives could  
be in conflict with the Coastal Commission, California Division of Forestry,  
Department of Health, Army Corps of Engineers, etc.
- All recommendations are to be transmitted to the Legislature for approval  
as part of the Management Plan. This approval would take place through  
enactment of law. This action will be the ultimate manner of resolution.  
We do not anticipate areas of overlapping jurisdiction as there will not  
be any new management agencies.
8. Why has not an economic study been provided? Some information should be  
available at this time.
- The consultant will soon be providing preliminary economic data. Economic data.
9. How will the permit requirements of other agencies be changed or duplicated?
- We are currently in the process of evaluating agency authorities and  
responsibilities. Only where existing rules and regulations are inadequate  
to comply with the intent of the Wild and Scenic Rivers Act will any new  
rules or regulations or changes to existing rules and regulations be  
recommended. No new permit agencies are anticipated and implementation will  
be through existing agencies; therefore, no duplication will result.
10. Who will be responsible for the implementation and enforcement of the plan?
- Implementation and enforcement of the plan will be through existing agencies.  
The Secretary for Resources has responsibility to assure that the rules and  
regulations are being properly carried out. This will be accomplished  
through coordination and post-project review.
11. Can the Department of Fish and Game provide the Advisory Committee with  
a time line showing the sequence of events leading to a final plan?
- A tentative schedule is attached.



12. The Department of Fish and Game must clarify as to how it arrived at its preliminary classifications (for example, dirt roads adjacent to wild streams).

This material is currently being refined and will be discussed at the January 9 meeting.

13. Which law is the implementing law--Federal or State?

The question is unclear as to its meaning.

14. What the the special treatment regulations proposed for the California Division of Forestry.

Copies of the proposed Special Treatment Area regulations will be transmitted as soon as we complete them.

January	Public review of Classification Alternatives-- Report	Review of com- adoption of Classification	Management Plan Preparation-----	Review of draft management--Public plan hearing
February				
March				
April				
May				
June				
July				
August				



Smith River Streamflow Data, 1977 and 1978

Tributary	1977			1978		
	Date	Flow (CFS)	Temp. °F	Date	Flow (CFS)	Temp. °F
<u>Lower Smith River</u>						
Rowdy Creek	7/1	6.3	68.0	7/7	23.3	62.4
S. Fk. Roudy Creek	7/1	1.2	57.6	7/26	1.6	60.0
Copper Creek	8/2	0.93	67.1	8/10	1.8	59.0
Dominie Creek	7/1	1.45	57.4	7/14	4.8	58.3
Savoy Creek	8/3	0.7 - 0.8	68.4	7/26	1.3	60.0
Norrison Creek	8/17	0.2 - 0.3	57.7	7/26	Too low to measure	61.5
Hutsinfiller Creek	8/17	0.1 - 0.3	54.0	8/3	0.33	55.2
Little Mill Creek	7/1	1.36	57.0	7/13	2.3	NA
Sultan Creek	7/11	0.17	57.6	7/27	Too low to measure	52.0
Peacock Creek	6/30 7/15	0.49 0.39	59.5 61.2	7/20	0.54	58.5
Clarks Creek	9/15	0.05 - 0.15	54.1		NA	56.0
Rock Creek	8/4	0.1 - 0.3	56.0	7/27	0.54	60.0
Hill Creek	8/4	1.0 - 2.0	62.4	7/31	7.3	65.0
Cedar Creek	8/4	0.1 - 0.3	55.8	8/1	0.47	57.0
Sheep Pen Creek	8/4	0.1 - 0.3	53.8	8/1	0.27	57.0

Smith River Streamflow Data, 1977 and 1978

Tributary	1977			1978		
	Date	Flow (CFS)	Temp. °F	Date	Flow (CFS)	Temp. °F
<u>Middle Fork Smith River</u>						
Middle Fork Smith	7/11	65.6	74.3		NA	
Myrtle Creek	7/1	1.36	59.9	7/27	4.1	63.0
Hardscrabble Creek	7/11	3.16	66.6	8/3	6.9	67.0
Eighteen Mile Creek	8/6	0.3 - 0.7	64.0	7/10	2.4	61.9
Kelley Creek	9/6	0.75 - 1.25		7/19	4.7	60.0
Patrick Creek	6/29	17.6	69.3	7/17	17.1	67.5
E. Fk. Patrick Creek	7/18	1.87	59.2	7/18	3.7	58.0
W. Fk. Patrick Creek	7/18	2.0 - 2.5	62.1	7/18	3.9	57.5
Shelly Creek	7/12	1.6	62.6	7/18	2.1	58.0
Little Jones Creek	7/20	4.39	62.1	7/19	7.0	58.0
Monkey Creek	7/20	3.08	63.5	7/17	5.8	62.0
Siskiyou Fork	6/29	16.6	68.0	9/11	98.5*	56.5
S. Siskiyou Fork	8/5	3.28	64.2		NA	
Packsaddle Creek	7/21	1.84	56.7	9/11	16.7*	51.0
Griffin Creek	7/21	1.55	62.1	9/6	7.3	55.0
Upper M. Fk. Smith (above Falls)		NA		9/6	23.2	53.0
Knopki Creek	8/30	1.75	60.1	9/4	6.6	54.0

\*Flow was high because of recent storm.



## LETTER 53 (cont'd)

Smith River Streamflow Data, 1977 and 1978

Tributary	1977			1978		
	Date	Flow (CFS)	Temp. OF	Date	Flow (CFS)	Temp. OF
<u>South Fork Smith</u>						
Craigs Creek	7/15	3.81	66.4	8/23	6.4	57.5
Coon Creek	8/22	2.30	63.9	8/22	8.6	61.5
Deer Creek		NA		8/21	Too low to measure	58.0
Boulder Creek	7/16	0.3 - 0.8	56.3	7/12	1.35	58.0
Rock Creek	7/14	1.0	69.8	8/16	7.6	62.0
Gordon Creek	7/29	0.93	58.5	9/17	8.5	51.0
Canhook Creek	7/29	0.7 - 0.8	59.2	7/11	2.1	56.8
Goose Creek	8/18	30.2	61.2	8/22	34.7	63.0
Jones Creek	7/6	10.17	63.0	7/25	15.0	70.0
Hurdygurdy Creek	7/14	14.74	72.1	8/29	16.9	66.5
Blackhawk Creek	8/18	0.27	65.0	7/25	0.44	60.0
Muzzleloader Creek	9/15	0.31	55.2	7/24	1.7	64.0
Buck Creek	8/10	4.39	61.2	9/15	18.4	52.0
Quartz Creek	8/10	2.86	62.1	9/15	14.4	52.0
Eightmile Creek	8/9	12.63	67.5	9/12	9.67	55.0
Harrington Creek	8/9	6.67	61.9	9/13	9.4	52.0
Prescott Fork	8/7	5.25	62.8	8/19	9.1	NA
S. Fk. Smith (just above Prescott)	8/7	9.13	64.6		NA	
Island Lake Creek	8/31	0.33	53.4	8/18	0.59	51.0
S. Fk. Smith (just below 3 forks)		NA		8/17	6.5	58.0

## LETTER 53 (cont'd)

Smith River Streamflow Data, 1977 and 1978

Tributary	1977			1978		
	Date	Flow (CFS)	Temp. OF	Date	Flow (CFS)	Temp. OF
<u>North Fork Smith</u>						
N. Fk. Smith	7/13	92.8	68.4		NA	
High Plateau Creek	9/14	1.32	56.8	8/8	2.1	70.7
Bear Creek	9/14	0.81	57.4	8/8	1.5	62.2
Wimer Creek	9/13	0.51	59.7	8/8	0.48	67.1
N. Fk. Diamond Creek	9/13	2.67	65.1	8/9	5.3	77.2
Diamond Creek (above N. Fk. Diamond)	9/13	3.15	63.3	8/9	6.0	68.0
Diamond Creek (100' below N. Fk. Diamond)	9/13	5.82	64.0		NA	
Diamond Creek (at mouth)		NA		8/8	19.5	68.4
Still Creek		NA		8/29	2.3	63.0
Peridotite Creek		NA		8/30	2.9	62.0
Stony Creek	7/19	6.34	72.1	8/31	7.1	66.0



## Streamflow Data from Small Tributaries to the Smith River, 1978

Tributary and/or Location	Date	Temp.	OF	Flow
<u>Lower Smith River</u>				
Burner Lake Outlet Creek	9/18	52.5		6.4
East Fork Mill Creek	9/18	54.5		20.7
West Fork Mill Creek	9/18	54.5		17.9
<u>Middle Fork Smith River</u>				
T. 17 N., R. 3 E., Sec. 18	9/16	59.5		0.58
Ten Mile Creek	8/30	59.0		0.15
Eleven Mile Creek	8/30	61.0		0.52
Boulder Creek	8/30	NA		Dry
Twelve Creek	8/31	56.5		1.2
Dead Horse Gulch	9/20	52.0		0.12
Fall Creek	9/7	53.0		0.38
T. 17 N., R. 4 E., Sec. 5	9/21	53.0		1.73
T. 17 N., R. 3 E., Sec. 22	9/19	52.0		0.44
T. 17 N., R. 3 E., Sec. 22 & 15	9/20	54.0		0.48
T. 17 N., R. 3 E., Sec. 27 & 16	9/19	51.0		1.87
T. 18 N., R. 4 E., Sec. 16 & 9	9/22	52.0		0.47
T. 18 N., R. 4 E., Sec. 21	9/22	50.5		0.89
T. 18 N., R. 4 E., Sec. 29	9/21	51.5		0.59
<u>South Fork Smith River</u>				
T. 16 N., R. 2 E., Sec. 30 & 31	8/29	57.0		0.17

## Smith River Fish Habitat Surveys, 1977 and 1978

Name	1977		1978	
	Habitat rating	Spawning suitability	Habitat rating	Spawning suitability
<u>Lower Smith River</u>				
Rowdy Creek	21 VH*	13 VH	17 H	10 H
S.Fk. Rowdy Creek	16 H	12 VH	19 H	10 H
Copper Creek	NA	NA	22 VH	13 VH
Dominie Creek	18 H	9 M	17 H	9 M
Savoy Creek	NA	NA	19 H	9 M
Morrison Creek	18 H	7 M	19 H	7 M
Hutsiniller Creek	NA	NA	18 H	11 H
Little Mill Creek	17 H	9 M	18 H	12 VH
Sultan Creek	NA	NA	17 H	6 P
Peacock Creek	19 H	7 M	21 VH	8 M
Clarks Creek	16 H	8 M	16 H	8 M
Rock Creek	15 M	8 M	20 VH	13 VH
Mill Creek	18 H	10 H	20 VH	12 VH
Cedar Creek	16 H	7 M	21 VH	13 VH
Sheep Pen Creek	NA	NA	20 VH	13 VH
<u>Middle Fork Smith River</u>				
Myrtle Creek	21 VH	13 VH	20 VH	13 VH
Hardscrabble Creek	20 VH	11 H	22 VH	13 VH
Eighteen Mile Creek	15 M	8 M	14 M	11 H
Kelley Creek	20 VH	11 H	17 H	12 VH
Patrick Creek	18 H	13 VH	15 M	10 H
C.Fk. Patrick Creek	20 VH	12 VH	17 H	12 VH

\*VH - Very high suitability

H - High suitability

M - Moderate

P - Poor



## LETTER 53 (cont'd)

-2-

Smith River Fish Habitat Surveys, 1977 and 1978 (Continued)

Name	1977			1978		
	Habitat rating	Spawning suitability	Habitat rating	Spawning suitability	Habitat rating	Spawning suitability
<u>Middle Fork Smith River (Contd)</u>						
W. Fk. Patrick Creek	18 H	12 VH	20 VH	11 H		
Shelly Creek	22 VH	13 VH	21 VH	13 VH		
Little Jones Creek	18 H	5 P	22 VH	13 VH		
Monkey Creek	18 H	10 H	21 VH	13 VH		
Siskiyou Fork	18 H	12 VH	20 VH	13 VH		
S. Siskiyou Fork	19 H	12 VH	NA	NA		
Packsaddle Creek	20 VH	10 H	21 VH	13 VH		
Griffin Creek	20 VH	12 VH	21 VH	12 VH		
Upper M. Fk. Smith	17 H	7 M	22 VH	13 VH		
Knopki Creek	18 H	10 H	21 VH	13 VH		
<u>North Fork Smith River</u>						
High Plateau Creek	17 H	12 VH	17 H	12 VH		
Bear Creek	17 H	11 H	19 H	11 H		
Wimer Creek	16 H	10 H	18 H	8 M		
N. Fk. Diamond Creek	18 H	13 VH	16 H	13 VH		
Diamond Creek (above N. Fk. Diamond)	18 H	13 VH	18 H	12 VH		
Diamond Creek (at mouth)	NA	NA	17 H	10 H		
Still Creek	NA	NA	17 H	13 VH		
Peridotite Creek	NA	NA	14 M	12 VH		
Stony Creek	NA	NA	15 H	9 M		

## LETTER 53 (cont'd)

-3-

Smith River Fish Habitat Surveys, 1977 and 1978 (Continued)

Name	1977			1978		
	Habitat rating	Spawning suitability	Habitat rating	Spawning suitability	Habitat rating	Spawning suitability
<u>South Fork Smith River</u>						
Craigs Creek	22 VH	13 VH	21 VH	12 VH		
Coon Creek	19 H	12 VH	20 VH	12 VH		
Deer Creek	18 H	8 M	20 VH	12 VH		
Boulder Creek	NA	NA	13 H	11 H		
Rock Creek	18 H	12 VH	21 VH	13 VH		
Gordon Creek	21 VH	11 H	20 VH	13 VH		
Canthook Creek	19 H	11 H	17 H	11 H		
Goose Creek	20 VH	12 VH	21 VH	12 VH		
Jones Creek	NA	NA	22 VH	13 VH		
Hurdygurdy Creek	21 VH	13 VH	20 VH	13 VH		
Blackhawk Creek	19 H	9 M	18 H	12 VH		
Muzzleloader Creek	20 VH	11 H	21 VH	13 VH		
Buck Creek	22 VH	12 VH	22 VH	13 VH		
Williams Creek	NA	NA	18 H	13 VH		
Quartz Creek	21 VH	12 VH	20 VH	13 VH		
Eightmile Creek	17 H	10 H	19 (18)* H	13 (13) V		
Harrington Creek	18 H	10 H	19 H	12 VH		
Prescott Fork	21 VH	12 VH	20 VH (19)* H	13 (12)		
Island Lake Creek	18 H	11 H	19 H	13 VH		
Upper S. Fk. Smith (just below 3 forks)	19 H	11 H	19 H	12 VH		

\*Survey started approximately 1 mile above mouth.



12/20/73

SMITH RIVER ALTERNATIVES

1. Tributaries named on USGS Quads.
2. Tributaries with a 2-mile minimum mesh length.
3. Tributaries with a 1-mile minimum mesh length.
4. Major tributaries ( $> 4$  cfs flow).
5. High value fisheries tributaries (fish habitat rating  $> 16$  or high potential for rehabilitation).
6. U.S. Forest Service proposed classification.

ALTERNATIVES

Name	USGS-named trib.	2-mile mesh	1-mile mesh	Major trib.	High* fisheries value	USFS	Classification
Lower Smith	X	X	X	X	X	X	Recreational
Ritner	X	X	X				Recreational
Delilah	X		X				Recreational
Domine	X	X	X			X	Recreational
Rowdy	X	X	X	X	+		Recreational
Copper	X	X	X	X			Wild
Savoy	X	X	X	X		X	Recreational
Morrison	X	X	X	X			Recreational
Hutshill	X	X	X	X			Recreational
Little Mill	X	X	X	X		X	Recreational
Sultan	X	X	X	X			Recreational
Peacock	X	X	X	X	+		Recreational
Clarks	X	X	X	X			Scenic
Rock	X	X	X	X			Recreational
Mill	X	X	X	X		X	Recreational
Bummer Lake Creek	X	X	X	X	+		Recreational

\* Fish Habitat Rating of  $> 16-22$  using a modified Kootenai Fish Habitat Suitability Assessment.  
 + Has potential, but need some rehabilitation.



## ALTERNATIVES (Continued)

Name	USGS-named trib.	2-mile mesh	1-mile mesh	Major trib.	High* fisheries value	USFS	Classification
Cedar	X	X	X				Wild
Sheep Pen	X		X				Wild
Middle Fork	X	X	X	X	X	X	Wild Recreational
Myrtle	X	X	X	X	X		Wild, Scenic
Hardscrabble	X	X	X	X	X		Wild, Scenic
Coldwater	X		X				Wild
Eighteenmile	X	X	X				Wild
Kelly	X	X	X		X		Wild
Patrick	X	X	X	X	X		Recreational
Twelvemile	X	X	X				Wild
Elevenmile	X	X	X				Wild
Boulder	X						Wild
Tenmile	X	X	X				Wild
West Fork Patrick	X	X	X		X		Recreational
East Fork Patrick	X	X	X		X		Recreational
Shelly	X	X	X		X		Recreational
Little Jones	X	X	X	X	X		Recreational

## ALTERNATIVES (Continued)

Name	USGS-named trib.	2-mile mesh	1-mile mesh	Major trib.	High* fisheries value	USFS	Classification
Unnamed T. 17 N., R. 3 E., Sec. 27		X	X				Recreational
Dead Horse Gulch	X		X				Wild
Monkey	X	X	X	X	X		Scenic
Unnamed T. 17 N., R. 4 E., Sec. 5		X	X				Scenic
Packsaddle	X	X	X		X		Scenic
Griffin	X	X	X	X	X		Recreational
Unnamed T. 18 N., R. 4 E., Sect 29			X				Wild
Unnamed T. 18 N., R. 4 E., Sec. 21		X	X				Wild
Knopki	X	X	X	X	X		Recreational
Siskiyou Fork	X	X	X	X	X	X	Recreational Wild
South Siskiyou Fork	X	X	X	X	X	X	Scenic
Fall	X	X	X				Recreational
North Fork	X	X	X	X	X	X	Wild
Stony	X	X	X	X			Wild
Peridotite	X	X	X				Wild



## ALTERNATIVES (Continued)

Name	USGS-named trib.	2-mile mesh	1-mile mesh	Major trib.	High* fisheries value	USFS	Classification
Still	X	X	X		X		Wild
Diamond	X	X	X	X	X		Wild Recreational
Wimer	X	X	X				Wild
N. Fk. Diamond	X	X	X	X	X		Recreational
Bear	X	X	X		X		Wild
High Plateau	X	X	X		X		Wild
South Fork	X	X	X	X	X	X	Recreational Wild
Craigs	X	X	X	X	X		Wild
Allens Gulch	X	X	X				Wild
Redwood Creek	X	X	X				Wild
Coon	X	X	X	X	X		Wild
Deer	X	X	X		X		Wild
Rock	X	X	X	X	X		Recreational
Boulder	X	X	X				Wild
Gordon	X	X	X	X	X		Wild
Canthook	X	X	X		+		Wild
Goose	X	X	X	X	X		Recreational

## ALTERNATIVES (Continued)

Name	USGS-named trib.	2-mile mesh	1-mile mesh	Major trib.	High* fisheries value	USFS	Classification
Hurdygurdy	X	X	X	X	X		Recreational
Jones	X	X	X	X	X		Recreational
Muzzleloader	X	X	X		+		Wild
Blackhawk	X	X	X		+		Scenic
Horse	X	X	X				Scenic
Buck	X	X	X	X	X		Wild
Quartz	X	X	X	X	+		Recreational
Eightmile	X	X	X	X	X		Wild
Williams	X	X	X	X	X		Wild
Harrington	X	X	X	X	+		Wild
Island Lake	X	X	X				Wild
Prescott Fork	X	X	X	X	X		Wild



## FEDERAL ENERGY REGULATORY COMMISSION

REGIONAL OFFICE  
355 BATTERY STREET, ROOM 415  
SAN FRANCISCO, CA 94111

January 31, 1979

Mr. William H. Covey  
Forest Supervisor  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

This is in response to your letter of November 20, 1978, requesting comments on the draft environmental impact statement on the proposed Land Management Plan for the Chetco-Grayback Planning Unit, Siskiyou National Forest, Oregon.

As you are no doubt aware, on October 1, 1977, pursuant to provisions of the Department of Energy Organization Act, the Federal Power Commission ceased to exist and its functions and regulatory responsibilities were transferred to the Secretary of Energy and the Federal Energy Regulatory Commission, an independent regulatory commission within the Department of Energy.

We have reviewed your draft report supplement to determine the effect on matters affecting the Federal Energy Regulatory Commission's responsibilities. Such responsibilities relate to the licensing of non-federal hydroelectric projects and associated transmission lines; certification for construction and operation of natural gas pipeline facilities; defined to include both interstate pipeline and terminal facilities; and the permission and approval required for the abandonment of natural gas pipeline facilities.

Our review indicates there would not be any significant impacts in those areas of concern nor serious conflicts with this agency's responsibilities if this plan were adopted.

Sincerely,

*Eugene Nebbett*  
(Acting for) Eugene Nebbett  
Regional Engineer



# Del Norte Municipal League

"The Taxpayers' Watchdog in Del Norte County"

207 PRICE MALL CRESCENT CITY, CA 95531 PHONE (707) 464-6677

January 31, 1979

Mr. William H. Covey  
Forest Supervisor  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, OR 97526

Dear Mr. Covey:

On behalf of the Del Norte Municipal League, which is Del Norte County's only incorporated non-profit taxpayer organization, I am pleased to submit the following comments regarding your Draft Environmental Impact Statement for the Chetco-Grayback Planning Unit land use plan. The League is a membership organization whose members include individuals, businesses and other organizations in the north coast area, but principally in Del Norte County of California. Inasmuch as our members are involved in the economic area for which you are planning we are very much concerned and interested in your planning activities.

We have read the Chetco-Grayback Planning DES and are generally in concurrence with the report except for the final conclusions. We believe that the facts presented support commodity oriented Alternative E over the Forest Service preferred Alternative D.

We will limit our comments to Alternative E as presented in Section V of the plan on Pages 122 through 125.

- A. Air Quality - We concur with the report (no negative impact).
- B. Fire - Alternative E is the best alternative.
- C. Fisheries, Soil and Water - We strenuously object to the statement that, "anadromous fish production would decrease" if only by 1%. This is simply unfounded and the fisheries, soil and water may well all be improved by Alternative E management.
- D. Future Options - We agree with the report (no negative impact).
- E. Historic and Archeologic - We agree with the report (no negative impact).





Mr. William H. Covey  
Del Norte Municipal League  
The Foresters' Working in the North Coast

Page 2  
207 Price Mail - Crescent City, CA 95531  
Phone (707) 464-6677

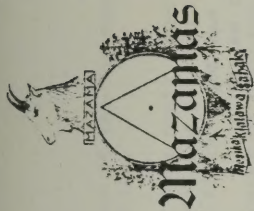
- F. Minerals - This alternative is in the best national interest.
- G. Noise - No significant negative impact.
- H. Recreation - Alternative E is the best alternative.
- I. Roadless Areas - All so-called "roadless areas" should be unfrozen and returned to multiple use.
- J. Socio-Economics - This is the most desirable alternative.
- K. Timber - The harvest level should be increased.
- L. Vegetation - We concur that there would be no significant negative impact.
- M. Visual - We believe that the retention of view shed amenities should be limited to the major paved roads and Research Natural areas.
- N. Wilderness - The League feels that the recent expansion of the Kalmiopsis Wilderness was unwarranted and Congress should reduce the size of the Kalmiopsis. We also feel no further wilderness areas should be considered in Southern Oregon or Northern California.
- O. Wildlife - We agree that Alternative E would "tend to increase" population levels of all game species with a positive impact.

We strongly urge the Forest Service to reverse its recommendations to lockup the North Fork Smith RARE II roadless area in further study. We also oppose the creation of a costly and unneeded Siskiyou Wilderness in the Siskiyou, Six Rivers and Klamath National Forests. We would apply our general comments also to Rogue-Illinois Planning Unit revised DES.

Sincerely,

*Harold Bratten*  
Harold Bratten, President  
DEL NORTE MUNICIPAL LEAGUE

HR/fsn



January 30, 1979

Mr. William H. Covey, Supervisor  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

Subject: Chetco-Grayback  
Planning Unit

Dear Mr. Covey:

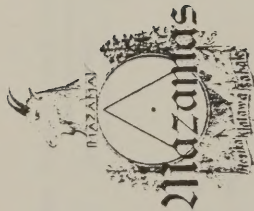
Mazamas is an outdoor and mountaineering club with more than 2,700 members. It is headquartered in the Portland area but has members throughout Oregon and the rest of the Northwest. On occasion, we schedule club trips into this area and individual members use the area frequently. We appreciate the opportunity to comment on the DES.

Though obviously much work has gone into the preparation of this document, we feel that it does not, in fact, contain sufficient viable alternatives in the disposition of the roadless areas, especially since the RARE II results have been announced. Alternative A, except for a few thousand of the 169,235 acres, was eliminated by the RARE II decision since most of the roadless areas are now general forest. The same thing happened to Alternative B where all but about 1,000 acres of the proposed 170,719 acres of Wilderness is now general forest. Alternative E goes in the opposite direction and puts essentially all the roadless areas into the cutting circle. The remaining Alternatives, C and D, do offer limited differences, but with just these two, the full range of land management plans are not present. Further, when C and D are compared with E, we have three that are all pretty much the same. The net result is that although the background information in the Statement is very good, the range of alternatives is lacking and we feel that the DES needs some revisions.

Be that as it may, we do have some thoughts on how we feel the area should be managed. First, we feel that Roadless Area 8709 South Kalmiopsis and 6176, North Kalmiopsis should be studied for roadless recreation, especially the higher and drier areas that are poorly stocked with timber.

Nine-O-Nine Northwest Nineteenth Avenue - Portland, Oregon 97209 - Telephone (503) 227-7345





Mr. William H. Covey, Supervisor

Re: Chetco-Grayback Planning Unit

Page 2.

This would also act as a buffer for the Kalmiopsis Wilderness. We also support Area 6701 for Wilderness and 6707 for further planning, since both these are parts of larger areas in adjacent National Forests.

It looks like this DES does not cover several thousands of acres on its eastern boundary that are in the Siskiyou National Forest along the boundary with the Rogue River Forest. It appears to be part of RARE II Area 6703. Here we would suggest roadless recreation for this high ridge top area. It would, and does provide, a nice trail corridor from the Oregon Caves area to the Red Butte country on the east. It would be a shame to further road this high area, especially since the timber values are relatively low.

In closing, we would like to discuss some other issues regarding the roadless area. First, we are taking the stand that these areas need to be studied for the best use, be it timber, water, recreation, wildlife, minerals or whatever. Most of these areas are roadless for reasons of too little timber, ground too steep or tree pockets too small to warrant road building, etc. Some of the reasons for much of the poor stocking levels are: past fires, poor soils, moisture stress from exposure to the south and west and brush competition. Until these problems are solved, much of these areas should remain unlogged. There are plenty of examples in southern Oregon where regeneration of clear cuts is quite poor, to almost non-existent. Much research needs yet to be done before these areas should be considered for timber production. Our feeling is that much of the current roadless areas should be put in a deferred classification to provide water, fish habitat, and recreation. When the time comes to again review this area, research may have progressed to the point where some of the areas could be considered for timber production.

Sincerely yours,

Ray C. Davis, Chairman  
Conservation Committee

RCD:rl

9335 Takilma Rd.  
Cave Junction Oregon 97523  
January 29, 1979

Forest Supervisor  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass Oregon 97526

Dear Sir:

On January 2, 1979, at a regular meeting of the Takilma Community Association, we discussed the Forest Service management plan for the Chetco-Grayback planning unit. The Takilma Community Association is a membership organization representing about two hundred people who live in the Takilma area. About twenty-five people attended this meeting and a quorum of the Board of Directors was present.

Romaine Cooper and other members of the Takilma area CAC presented an alternate plan for the Upper East Fork Illinois River. This plan calls for more protection for the East Fork of the Illinois, Dunn Creek and other tributaries, visual safeguards for "seen areas," discontinuation of herbicide use, and feasibility studies on small sales and on the use of "unmerchandise material." A copy of the alternate plan is attached.

Every person at the meeting was in support of the alternate plan. I am writing now to say that the Takilma Community Association supports the alternate plan. We hope you will give it serious consideration. Many of the people who live in this area feel very strongly regarding the protection and appropriate use of the National Forest. We are also particularly opposed to the danger of herbicides in our drinking water!

Sincerely,

Elaine Zablocki

Elaine Zablocki  
for the Takilma Community Assn.



TAKILMA CITIZENS ACTION COMMITTEE

Proposed management plan for the Upper East Fork Illinois River portion of the Chetco-Grayback Planning Unit.

INTRODUCTION

The Takilma CAC is a committee of five members who are elected annually from the Takilma area. Our purpose and responsibilities include the review and evaluation of government land use plans affecting our area. Forest Service lands on the Grayback Planning Unit virtually surround our Valley, so a land-use plan for the Chetco-Grayback unit is relevant to the Takilma area's land-use concerns.

This TCAC land-use plan is not comprehensive. Rather we are recommending particular allocations and management methods, constraints, and directions affecting our local Takilma citizenry and resource base. The area we are covering with this proposed plan consists of the upper East Fork Illinois River watershed, from Elder Creek upstream. This area will be referred to as the "Upper East Fork Illinois River watershed or drainage" throughout this plan.

PROPOSED PLAN

- A. Allocation of East Fork Illinois River from the Siskiyou National Forest boundary upstream and main stem Dunn Creek as fisheries/watershed areas.
- B. Allocation of certain major tributaries as special treatment/watershed areas. These tributaries are Elder, Little Elder, Page, Chicago, N. Fork Dunn, Poker and Black Creeks.
- C. Re-evaluation of remainder of Upper East Fork Tributaries in regard to Stream Management Unit (SMU) classification.
- D. Strong visual safeguards for "seen areas" from the Takilma Valley floor.
- E. Discontinuation of herbicide use in the Upper East Fork drainage and an aggressive program testing the feasibility of non-chemical site preparation and release techniques.
- F. Pilot programs for the Upper East Fork drainage testing the feasibility of:

1. Utilizing more of the "un-merchantable material" from harvest sites.
2. Marketing of more small sales including small volume sales, salvage sales, pole sales, fence post sales and firewood sales.
- G. An intensified program of resource monitoring and data collection and compilation for the Upper East Fork drainage.
- H. A study to evaluate the benefits of, and possibilities for, a research natural area for the Grayback Planning Unit area.
- I. Official recommendation from the Siskiyou National Forest to the Intra-forest planning team of the Siskiyou planning Unit, endorsing a non-development allocation of Roadless Areas 701 and 601.

SPECIFIC MANAGEMENT DIRECTIVES AND CONSTRAINTS FOR THE ABOVE PROPOSED PLAN

- A. The fisheries/watershed allocation will maintain a 1/8 mile horizontal distance from streams in a near-natural condition. Primary management goals will optimize fisheries, watershed and wildlife values. No extensive road building or timber harvesting will be allowed in the corridor. Existing roads will be maintained if: 1) they receive significant use and 2) they are up to a standard that insures minimal adverse impacts on the fisheries, watershed and wildlife resources. Major roadways in the fisheries/watershed area will be subject to stringent maintenance requirements that will benefit the fisheries and water resources. Some small scale timber harvest, especially salvage harvest and firewood gathering can be allowed, but at low levels. Snag (dead tree) densities will be kept high.
- B. Special treatment-watershed areas will be managed as Class I Streams. In addition they will have a SMU corridor of three chains width on each side of streams. As many snags as possible will be retained, with consideration given to the danger factor. A minimum of 50% of the commercial timber will be retained in the Special Treatment-Watershed zones. The "leave trees" will be representative of all age classes at roughly the same proportion they naturally occur. Trees with defects, in difficult positions to fell or yard, very close to the stream bed and in snag patches can make up a large percent of the "leave trees". Of the streams listed for Special Treatment-Watershed allocation, only those sections classes as perennial will be included for allocation.



C. This re-evaluation of SMU classification for Upper East Fork tributaries will consider that the critical stream area for domestic use starts at the intake point and moves upstream a considerable distance. This distance depends upon a variety of factors including hydrological conditions of, and soil movement in, the particular watershed.

D. All vistas from the Takilma Valley floor will be protected under the Siskiyou National Forest Visual Management System. Hope Study Areas 80-01 and 80-02 are crucial as Hope Mountain is such a prominent feature from the north and south ends of the valley. Hope Mountain will be given full-retention protection and no roads or harvest units visible from the Valley floor will be allowed. "Seen areas" from Takilma Road and the East Fork should be classes Sensitivity Level 1.

E. Self-explanatory.

F. Self-explanatory.

G. We particularly want studies in our area monitoring and compiling data on:

1. Water quality and quantity.
2. Sedimentation levels, soil loss, soil mass movement and channel erosion.
3. Reproductive success of harvest units.
4. Broadcast burning and its effects on soil movements and soil productivity.
5. Nutrient recycling.
6. Fish and wildlife populations.
- H. Self-explanatory.
- I. Self-explanatory.

#### RATIONALE FOR PROPOSED PLAN

A. The Upper East Fork Illinois River and Dunn Creek provide vital spawning grounds for winter steelhead. Chinook salmon also utilize the grounds. The fisheries/watershed allocation will safeguard and upgrade the critical habitat involved and hopefully allow an increase in spawning fish - particularly salmon. In terms of watershed and water quality protection, this allocation will help insure that riparian vegetation that was damaged from the 64 flood, can re-establish with minimum disruption, allowing the water channel to stabilize.

Also, fisheries/watershed areas will optimize wildlife, recreational and scenic values. Takilma residents will utilize and appreciate this corridor.

B. The special treatment-watershed areas will provide more protection to watershed and fisheries values than a simple Class I SMU status. The tributaries involved are major ones that are important influences on the main branch of Dunn Creek and the East Fork. This allocation will seek to balance watershed, wildlife, fisheries and timber values in the critical stream bottom sites.



C. Much of the SMU classifications are out-of-date and need revision. Also, the importance of anadromous fisheries streams upriver from the barrier needs to be more carefully considered.

D. Most Takilma residents want the views from our Valley floor to remain up to present conditions. Hope Mountain is appreciated as an unspoiled view and is so "close-in" that any harvest site or roadway would be unsatisfactory. Its slopes are in view along the whole of Takilma Road from the junction of Takilma Road and Happy Camp Road to a bit beyond Page Creek Road. Page Mountain scenery is a mess; efforts should be made to keep future activities from dominating the landscape. The more distant views (south) of large peaks are also important.

E. Most of the residents of Takilma Valley consider herbicides dangerous toxins that directly threaten our families' health. We believe that these chemicals pose a substantive threat to the surrounding environment and its forest soil productivity. We do not consider these chemicals harmless or short-lived, even at low usage levels. We are relatively well informed on the many facets of this issue and are not satisfied that the Forest Service position is responsible or diligent.

F. 1) Utilization of more wood from harvested units would help meet demands for saw-logs, pulp wood, bio-fuel and cord-wood from our National Forests and would raise forest-related employment.

2) Often the District Forest Service office hasn't the money or time to help the "regular folks", but they are busy laying out million board foot sales for million dollar businesses. The employee hours and funds should be available to help local people purchase small sales: pole sales, fence post sales, firewood sales and the like. This will prevent some good wood from rotting on the stump or on the ground and will result in better utilization of forest benefits, especially for local residents.

G. An intensive system of data gathering plus an efficient, meaningful methods of compiling said data is an important part of properly practiced forest management. The more local the data used, the more valuable and applicable the findings. Many residents of Takilma are curious about the state of our forests and want a high caliber of forestry practiced on our watershed.

H. The Grayback Planning Unit seems different in understory community, moisture levels, elevation range, etc. than other parts of the Siskiyou National Forest. A research natural area in this portion of the forest would be invaluable as a management tool, supplying baseline data usable throughout the Grayback Planning Unit. Is such an area available? A potential area should contain a whole minor drainage (or the upper portion of one), be relatively natural and be representative of the Grayback Unit forest types as much as possible.

I. The Roadless Area 701 of the Siskiyou National Forest will be "planned" along with approximately 200,000 contiguous roadless acres in the Klamath and Six Rivers National Forests. This roadless area is very much appreciated by a majority of the local residents and is used considerably as a place to camp, fish and hunt. The parts of this roadless area in the Siskiyou National Forest are also the parts in the East Fork Illinois drainage. A nondevelopment allocation for Roadless Area 701 will best protect watershed, fisheries, wildlife, scenic and primitive recreational values and will leave future options open. This area is very damage prone, with low timber volumes and timber-growing potential and is hard to reforest, according to Forest Service information.

#### Conclusion

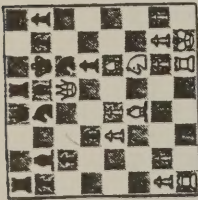
This plan for the Upper East Fork Illinois drainage portion of the Chetco-Grayback Planning Unit is officially recommended by the Takilma Citizens Action Committee. We feel that this plan aptly incorporates the wishes and values of a majority of the Takilma residents.

The TCAC would like to maintain an open, cooperative dialogue exchange on a regular basis with both district and supervisor's office, as well as the planning team and resource specialists. These exchanges would give us a chance to discuss forestry and land-use matters concerning Forest Service lands in the Upper East Fork Illinois watershed.

Thank you for the opportunity to submit this plan and for your consideration.



**chee**  
*Caecidolistic*  
 Economic Consultants  
 1604 N.E. 48th, Portland,  
 Oregon 97213 (503) 287-8333



*Forestry in the  
 public Interest*  
 send reply to: see left

Feb. 1, 1979

William H. Covey  
 Siskiyou National Forest  
 P.O. Box 440  
 Grants Pass, Ore. 97526

Dear Sir:

This letter comprises our review of the Chetco-Grayback Draft Environmental Impact Statement on the Siskiyou National Forest.

The entire EIS is written within the framework of the definition advanced for "multiple use," found on page 82: "...In practice, multiple use strongly tends to be a patchwork of dominant uses over a unit. Secondary uses usually occur as consistent with the particular dominant use in a particular segment of the larger unit." Maximization of one resource with others occurring incidentally is a multiple of uses, but it is not multiple use. Multiple use means the combination of those uses which are best combined, keeping in mind that the public lands are held in stewardship for the future.

Use of this definition of multiple use leads the EIS into several problems. The planning assumptions, management goals and alternatives are all slanted towards development, with the dominant use tending to be timber harvest and its related activities.

For example, under Resource-related Planning Assumptions, there is no assumption relating to the need for ecosystem integrity and stability, which is mandated in the National Forest Management Act of 1976. Concern for ecosystem stability and habitat diversity will increase and dictate to a large extent management activities on the unit. Ecosystem stability includes leaving significant portions of all habitat components, such as old growth and riparian areas. A related concern would be the "mining" of resources. Those resources that are mined, be they nickel or timber, need to be harvested only where it will do the least damage. Land allocations should be based partly on a criterion of utilizing carefully such resources. On the Siskiyou, timber is frequently one of these.

The section on Management Goals and Constraints should not only explain what the goals are in terms of commodity production, but also give the public an understanding of the constraints on that development, as well as positive steps that will be taken to protect the environment. For several reasons, this section does not reach that goal. On page 84, the EIS states: "Future conditions on the unit must be monitored for comparison with the present status quo conditions to assure compliance with the following, more specific constraints..." The baseline of comparison for future activities should not be the present levels of change; but the natural one. Using the present levels of change will frequently not show the magnitude of changes

occurring in the future as a result of man's activities.

One of the key portions of the EIS is the description of the Management Areas. However, the language is sufficiently vague that it is difficult to tell just what the actual level of development will be. For example, five out of ten management areas allow programmed timber harvest. But the extent permissible is not specified. This should be more clearly identified, as it is important for members of the public to know the extent to which timber management activities will intrude upon the landscape.

The major concern expressed by our clients is that of watershed integrity, and forms of management that will protect it. The fisheries/watershed management area is simply a 1/8 mile distance from a stream's edge in which management activities will be somewhat constrained--although there is programmed timber harvest. There is no management area which deals with the concept of a watershed, and of designating all key lands within it to maintain water quality. Such a management area will also need to include some management constraints, such as a ban on the use of herbicides in the designated watershed.

There is no real range of alternatives, nor are there any that deal with major public concerns. Only one alternative (B) proposes any new wilderness. It designates all roadless areas in the unit to wilderness. All other alternatives have no proposed additions. However, alternative (B) proposes no new Research Natural Areas. The alternatives range from production of 67% of current timber production to over 100% of current production. There is no alternative that explores the possibility of significantly lower harvest levels.

The Siskiyou is quite high in geological and botanical wonders, yet none of the alternatives, nor any of the management areas, explore land allocations that would protect such areas, such as Scenic Interest Areas. The forest service has the option of creating land allocations that restrict development activities in a variety of ways outside of wilderness and RNA's. No alternatives deal with protection of the Illinois watershed through designation of key roadless areas such as Squaw Mountain as wilderness and use of other management constraints.

Another aspect of land management that has been completely ignored by the EIS is old growth. It is surfacing as a major issue in Oregon. Many national forests are implementing some sort of old growth plan. All national forests in Oregon except the Siskiyou and the Mt. Hood are proposing plans to protect old growth. It is insufficient to simply say that a certain percentage of the planning unit will be managed in its natural state, for two reasons: first, those areas that are to remain natural will not necessarily have old growth of sufficient amount or character to qualify as either system component or wildlife.

Second, the distribution of old growth is a key question which is not addressed by leaving some areas, such as wilderness, natural. Old growth is a component of the forest ecosystem. It is not merely wildlife habitat. Thus, the extent to which pileated woodpeckers are being used as indicators of the old growth needs to be explained. Is the size of their territory known? What are their feeding and nesting requirements? There needs to be an alternative which allocates land to old growth, such as 15-20%, distributed evenly across the forest in key places, such as steep slopes and headwaters.

The choice of alternative (B) as the preferred alternative dovetails with the



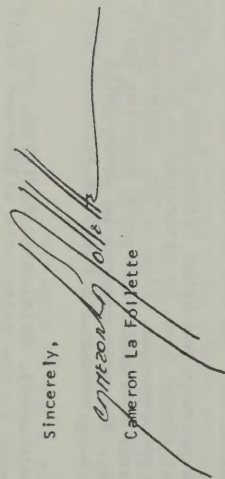
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section on Effects of Implementation, which is vague and general. Economic analysis is a very important tool for determining land allocations. The EIS contains no economic analysis of the loss to society of nonmarket values, such as opportunities for primitive recreation, rare flora and fauna, undisturbed watersheds, old growth, etc. These things can be calculated, but no attempt has been made to do so. The Siskiyou contains some of the most valuable Wilderness land left in Oregon. Loss of this has not been explored.

There is no quantification of the impacts of development. For example, the section which describes the effects on vegetation is exactly the same under alternatives (A) and (B) and under alternatives (C), (D), and (E). They merely state that vegetation will be left in essentially the natural state except that in developed areas there will be a return to the early successional stages. This gives the reader no understanding at all for the gravity of the changes, or the specific effects in specific areas. For example, what will be the effect of clearcutting in the Illinois watershed in terms of increased sediment load? What would be the level of wildlife populations maintained if 20% of the Unit were put into old growth management?

Before the Final EIS is written, CH&C suggests that an economic analysis of the values at stake in the Unit be undertaken. Effects of implementation must be better quantified so that the public may evaluate the alternatives. Furthermore, in order to assess the impacts of human-caused activities a baseline of natural environmental conditions as opposed to one of current conditions, should be presented.

Sincerely,

  
Cameron La Follette

January 30, 1979  
1010 S.W. 10th St.  
Hermiston, OR 97838

Mr. William H. Covey, Forest Supervisor  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, OR 97526

Dear Mr. Covey,

I am writing to express my concerns regarding the Rogue-Illinois and the Chetco-Grayback Planning Units. I am disturbed that the five alternatives presented in the Draft Environmental Impact Statements (DEIS) consider only the extreme management options and no middle ground options. In so doing, the DEIS polarize the supporters of timber and those of wilderness and makes the ultimate selection and implementation of an alternative which is consistent with the Multiple Use concept difficult, if not impossible. However, Multiple Use is the law and should therefore be the planning and management goal.

In the Rogue-Illinois Planning Unit, Alternatives C, D, and E shuffle 2.7% of the planning unit among the management areas. For all intents and purposes there is no choice; they are essentially one alternative promoting intensive timber harvest. Alternatives A and B are polar opposites to the commodity alternatives of C, D, and E. The Chetco-Grayback Planning Unit contains the same deficiency, though to a somewhat lesser degree. However, even in Alternative C which has 16.4% of the planning unit in Management Area 2, there are no opportunities to provide a full range of amenity values. In particular, additional portions of the planning unit are not considered for wilderness designation.

The Kalmiopsis Wilderness presently protects a small portion of the wilderness resource within the Rogue-Illinois and Chetco-Grayback Planning Units. As one of the few remaining opportunities in Oregon to preserve an entire natural system, we would be remiss to not allocate additional lands for wilderness designation.

Due to the proximity of three geologic and climatic areas, i.e. the Coast Range, Siskiyou, and Cascade provinces, the area encompassed by the Rogue-Illinois and the Chetco-Grayback Planning Units displays the greatest botanical diversity of any area in Oregon. The Oregon Rare and Endangered Plant Task Force has identified as many as 200 species occurring in the proximity of these two planning units, which account for about 25% of the total plant species recommended for protection in the state.

The undeveloped nature of much of the Rogue-Illinois and Chetco-Grayback Planning Units combined with their natural diversity has resulted in habitat for a variety of wildlife species rapidly



LETTER 61 (cont'd)

disappearing elsewhere. Bald eagles, spotted owls, martens, fishers, cougars, blackbear, and bobcats all inhabit the area. River otters are plentiful in the canyon rivers while intact watersheds provide quality habitat for a multimillion dollar anadromous fishery.

Roading, harvesting, and managing the undeveloped portions of these planning units will severely degrade, if not eliminate many of the botanical, wildlife, and fisheries resources now present. Alterations in the successional stages, especially reductions in old growth, climax forests, will destroy habitat for many rare and endemic plants, and diminishing wildlife species. Disturbance of unstable soils will cause erosion and mass soil movements that silt in spawning gravels and exposure of headwaters by timber harvesting will raise water temperatures. Decreases in anadromous and resident fish populations are inevitable.

In a state where most of the private and State forest land is over-cut, and much of the National Forest land is allocated to intensive timber management, the greatest resource value of the undeveloped lands within the Rogue-Ilinois and Chetco-Grayback Planning Units is unquestionably wilderness. The area covered by these units presents a rare opportunity to preserve, in the true sense of the word, wilderness.

The addition of the North Kalmiopsis, Kalmiopsis Addition, and South Kalmiopsis Roadless Areas to the Kalmiopsis Wilderness would insure protection for the botanical, wildlife, and fishery resources, as well as the wilderness value present. The addition of the Rogue, Potato Mountain, Shasta Costa, and Quosatana Roadless Areas to the Wild Rogue Wilderness as non-contiguous units would preserve the water quality of Rogue River tributaries. Designation of the Briggs-Squaw Mountain Roadless Area as back country with no roads and no logging, would protect the resource values it contains. Finally, the Illinois River Corridor should also be protected intact until a determination is made whether or not to include the river in the Federal Wild and Scenic Rivers System.

In closing, I would submit that wilderness is, indeed, true multiple use. Only timber harvesting and the use of motorized vehicles is prohibited in the Wilderness Act. Recreation is not the only use of wilderness. The abundance and diversity of rare and/or endemic plants and wildlife, and quality watersheds supporting anadromous and resident fisheries demonstrate the wide range of uses of the roadless areas.

LETTER 61 (cont'd)

I recommend that the preferred alternatives for the Rogue-Ilinois and Chetco-Grayback Planning Units be reconsidered. It is my hope that land use plans founded upon a true multiple use ethic be developed and implemented.

Sincerely,

*Marian A. Zimmerman*

Marian A. Zimmerman

cc: Senator Mark Hatfield  
 Senator Robert Packwood  
 Representative Jim Weaver  
 Governor Victor Atiyeh  
 Regional Forester R. E. Worthington

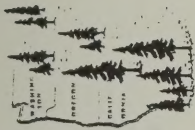




# INDUSTRIAL FORESTRY ASSOCIATION

SERVING FOREST OWNERS, LOGGERS, WOOD USERS  
THROUGHOUT THE DOUGLAS FIR REGION

225 S W BROADWAY / RM 400  
PORTLAND, OREGON 97205



January 31, 1979

Telephone  
(503) 222-9505

Mr. William H. Covey, Forest Supervisor  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

SUBJECT: Chetco Grayback Planning Unit

Dear Mr. Covey:

If the Siskiyou National Forest is going to make its proper contribution towards fulfilling assigned RPA goals, it appears that only Alternative E should be considered as the Preferred Alternative for the Chetco-Grayback Planning Unit. This alternative provides flexibility while assuring that all resources will be properly managed. Current regional and forest policies and guidelines will adequately protect fisheries, water quality, soils and other resources under this alternative.

Alternative D is very close to Alternative E, but unnecessarily adds additional special management areas that really are not necessary.

On page 273 and 274 of the statement are tables showing values assigned to fish caught by commercial and sport fishermen. It is difficult to understand how a chinook salmon caught commercially is valued at only \$11.00 (page 274) but if it is landed by a sport fisherman its value rises to near \$135.00 unless it comes from the Illinois River where it's worth only \$126.00. The term net value is a poor one to use when discussing sport fishing values. A better approach would be a discussion of economic impact or business income generated by sport fishermen rather than trying to set net values. The fish valuation statements on page 34 and the tables on page 273 should be footnoted to indicate that fisheries and timber values are not directly comparable.

The timber valuation section on page 61 needs to be clarified. What is gross value (selling value)? Is this the stumpage price that the Forest Service receives for the timber?

The cost benefit tables on page 136 need some explanation.

In general the statement is well done, sufficiently concise and adequate to satisfy NEPA requirements. We hope our comments will be helpful in writing the Final EIS.

Very truly yours,  
*George E. Knowles*  
George E. Knowles  
Director of Public Forestry

GK: IF

Informed Forestry Action



OFFICE OF THE ATTORNEY GENERAL  
SACRAMENTO, CALIFORNIA  
1515 J STREET, SUITE 100  
SACRAMENTO, CALIFORNIA 95811

EDMUND G. BROWN, JR.  
GOVERNOR OF  
CALIFORNIA

(916) 445-5866

Department of Conservation  
Division of Fish and Wildlife  
1515 J Street, Suite 100  
Sacramento, California 95811  
Telephone: (916) 445-5866  
Teletype: (916) 445-5866



THE RESOURCES AGENCY OF CALIFORNIA  
SACRAMENTO, CALIFORNIA

FEB 5 1979

Mr. William H. Covey  
Forest Supervisor  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, OR 97526

Dear Mr. Covey:

Your Draft Environmental Statement (DES) for the Chetco-Grayback Planning Unit, which you submitted to the Office of Planning and Research (State Clearinghouse), has been reviewed by the State agencies concerned. This fulfills requirements under Part II of the U. S. Office of Management and Budget Circular A-95 and the National Environmental Policy Act (NEPA) of 1969.

The DES has been reviewed by the Departments of Conservation, Fish and Game, Forestry, Parks and Recreation, Water Resources, Food and Agriculture, and Health; the Air Resources, Solid Waste Management, and State Water Resources Control Boards; and the Energy Resources Conservation and Development and State Lands Commissions.

The Chetco-Grayback Planning Unit consists of 188,000 hectares (465,000 acres) located in the Siskiyou National Forest in Oregon and California. The area of the planning unit within Siskiyou County, California, consists of 7,000 hectares (17,000 acres) within the East Fork and West Fork Illinois River watersheds.

All of the California land is identified as Management Areas 1 or 2 in the preferred alternative (Alternative D). According to the definitions set forth in the DES, these areas will be managed for multiple uses including timber production, fish and wildlife habitat, recreation, and possibly mineral and water resource development.

Mr. William H. Covey  
Page 2

Specific Comments

Fish and Wildlife

1. We recommend that the output tables shown for each alternative be modified to reflect figures for the portion of the forest in California separate from the Oregon portion. If this were done, we would be in a much better position to assess the positive as well as the negative aspects of each alternative with respect to the State's fish and wildlife resources. The way the information is now presented makes it difficult for us to make a meaningful assessment. We believe this is important in light of the large percentage of the unit in California that is designated as Management Area 1 lands (optimized timber production) under the preferred Alternative D.
  2. We recommend that the resource summaries for each alternative that correspond to the output tables also be modified to address separately the impacts on various resource values for the California portion of the forest.
  3. The description on page 86 of management prescriptions that would be applied to "Management Area 2" lands should be modified to state more clearly what would happen to RARE II (Roadless Area Review and Evaluation) areas. It is difficult for the reader to tell what the ultimate disposition of RARE II lands would be--that is, whether they will be roaded for resource production or unroaded for resource protection. This is of concern to us because RARE II Area 6701 lies within California. Valuable and diverse wildlife habitats and dependent wildlife populations exist within this area and are self-sustaining and sensitive to roading.
  4. The Wildlife Section on page 121 should be expanded to reflect more clearly the adverse effects that timber harvesting and follow-up silvicultural practices can have on fish and wildlife resources. For example, much of the forest's volume will apparently be met by removing as much old growth forest as possible, usually by clear-cutting or shelterwood harvesting techniques. The implications of such habitat loss on wildlife populations dependent on an old-growth forest type could be significant.
- Another example is the contention that timber harvesting is completely beneficial to deer and other wildlife species that require early successional vegetative communities. While we concur that short-term benefits for such species can be realized, follow-up silvicultural practices can reduce these short-term benefits and in the long run adversely affect wildlife species dependent on sub-climax vegetative communities.



Mr. William H. Covey  
Page 3

5. There are several statements in the DES to the effect that specific actions will be taken to provide for the maintenance of existing wildlife habitats and dependent wildlife populations. We recommend that a full description of such actions be included within the document, especially in regards to the preferred alternative. For example, we are interested in whether specific areas will be managed for fish and wildlife purposes like widespread areas are managed for timber production, and where such areas would be located in California.

The Department of Fish and Game request an opportunity to meet with the Forest Supervisor of the Siskiyou National Forest and his staff to discuss the DES and our concerns regarding fish and wildlife resources, preferably prior to the Forest's development of a final environmental statement. To arrange such a meeting, please contact Mr. A. E. Maylor, Regional Manager, Region 1, at P. O. Box 1480, Redding, CA 96001. The telephone number is (916) 246-6511.

#### Cultural Resources

Although we believe the document acknowledges the Siskiyou National Forest's responsibility to properly address cultural resources as set forth by Presidential Executive Order 11593 and the Advisory Council's guidelines (36 CFR Part 800), it would appear to us that this is a responsibility which has not previously been adequately discharged in a manner consistent with the above referenced federal directive and guidelines. We would ask that the Siskiyou National Forest submit on a continuous basis all cultural resource assessments for proposed undertakings within the planning unit in order that the State Historic Preservation consultation provision of the Advisory Council's guidelines may occur as prescribed.

Sincerely,

*Charles L. Felber*  
L. FRANK GOODSON  
Assistant Secretary for Resources

cc: Director of Management Systems  
State Clearinghouse  
Office of Planning and Research  
1400 Tenth Street  
Sacramento, CA 95814  
(SCH No. 78121132)

## International Snowmobile Industry Association

February 1, 1979

Mr. William H. Covey  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, OR 97526

Dear Mr. Covey:

The International Snowmobile Industry Association has carefully reviewed the draft environmental statements for the Rogue-Illinois, Chetco-Grayback Planning Units and wishes to submit its comments and suggestions in the hopes of stimulating rational, equitable public policy. We appreciate this opportunity and are hopeful that our views will be reflected in final management plans for Siskiyou National Forest.

In general, we believe that the plans are responsive to management needs. During the 1978 season, 7,529 snowmobiles were registered in Oregon, representing an increase of approximately 11% over 1977. ISIA estimates though, that there are actually nearly 11,500 snowmobiles being actively used by Oregon's 38,440 snowmobilers. We therefore believe the plans could be revised to include additional information on snowmobiling, a tremendously important recreational outlet for major segments of the Canadian and U. S. populace dwelling in snowbelt regions. This information is important, we feel, to sound public policy-making.

#### General Comment and Statement of Need

Commercial production of the modern, lightweight snowmobile has a short history, extending back slightly more than one decade. Within this period, the sport of snowmobiling has grown to its current stature involving millions of individuals of all ages as active participants in this healthful, family-oriented activity.

Recreational snowmobiling continues to grow and attract new adherents at a rapid rate. According to a survey by the A. C. Nielsen Company, snowmobiling is the third fastest growing sport in America - ranking only behind tennis and snow skiing. The survey further showed that participation in the sport grew by 19% between 1973 and 1976.

An extensive nationwide telephone survey conducted in 1977 by Opinion Research Corporation of Princeton, New Jersey for the U. S.



Suite 450 South  
1800 M Street, N.W.  
Washington, D.C. 20036  
(202) 331-8404  
Telex: ISIA WSH 89-534



## LETTER 64 (cont'd)

Mr. W. H. Covey  
February 1, 1979  
Page Four

We feel there has been significant research to support this thesis. Mr. Richard L. Bury, of the Department of Recreation and Parks, Texas A & M University, in a paper written for the Wildlife Management Institute in 1978, entitled "Impacts of Snowmobiles on Wildlife," summarized the environmental impact of snowmobiling this way:

"The snowmobile industry early recognized the need for research into the environmental effects of its machine and actively supported independent research studies at universities; the result was that by 1973 it could be stated that 'in-depth research conclusively points out the minimal impact the snowmobile has on its environment' (P. Doyle 1973). This statement is unquestionably true when placed in the context of all off-road vehicles; the snowmobile truly produces less impact on environments than do motorcycles or four-wheel drive vehicles."

The U. S. Department of the Interior issued an environmental statement covering the implementation of Executive Order 11644, as amended by Executive Order 11989, in the spring of 1978. It contained the following conclusion:

"A major distinction is warranted between snowmobiles and other types of off-road vehicles. Snowmobiles operated on an adequate snow cover have little effect on soils--and hence cause less severe indirect impacts on air and water quality, and on soil-dependent biotic communities, than other ORV's do."

Evidence is thus clear that treatment of motorcycles, snowmobiles and four-wheel drive vehicles as a single entity under the term "off-road vehicle" is a counter-productive exercise.

### Wildlife and Vegetative Impact

Special concerns exist among snowmobilers and management officials alike regarding the relationship between snowmobiling and wildlife. Recent research in these areas serves to dispel many of these concerns.

The results of a comprehensive three-year study conducted by the University of Wisconsin were published in 1976 in a report by Dr. Andres Soom. This report, entitled "Emission, Propagation and Environmental Impact of Noise from Snowmobile Operations" concluded:

## LETTER 64 (cont'd)

Mr. W. H. Covey  
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Page Five

"The results of extensive experiments on the effects of snowmobile noise and operation on the behavior of deer and rabbits are presented, and it is concluded that the noise from snowmobiling operations, does not, by itself appear to be a significant factor in determining animal behavior."

Addressing the subject of snowmobile operations in Yellowstone National Park, Jack Anderson, former Superintendent of Yellowstone, commented:

"We found that elk, bison, moose and even the fawns wouldn't move away unless a machine was stopped and a person started walking. As long as you stayed on the machine and the machine was running, they never paid any attention. If you stopped the machine, got off and started moving, that was a different story. The thing that seemed to be disturbing to them was a man walking on foot."

"Now in reference to snowmobile operation in the Park infringing upon the intrinsic majesty of the area or threatening the wildlife characteristics of the Park, I'd have to say this simply is not the case. I think one of the things the snowmobile did was to finally let people see what a great experience it is to get out in the wintertime and really see the Park."

Furthermore, concerns about wintering deer and the effects of snowmobile operation in the White Mountain National Forest led to a study by the Forest Wildlife Biologist. Forest Service staff and student volunteers monitored snowmobile operation in the forest. A summary of the study entitled, Snow Machine Use and Deer in Rob Brook, indicated that deer travel patterns were not affected by periodically heavy snowmobile use. In addition, "no evidence of winter (animal) mortality" was found, and continued use of established snowmobile trails was recommended.

Unfortunately, some isolated instances of wildlife harassment occur. Harassment -- whether by means of horse, truck, four-wheel drive vehicle, trail bike, skis or one's own feet -- cannot be condoned or rationalized. Such actions constitute deviant and, in most cases, criminal behavior, and should not be confused with the sports of horseback riding, hiking, skiing, trail biking and snowmobiling.

Where snowmobiling is concerned, prevention of unintentional wildlife disturbance is usually quite readily accomplished because the mobility of animals, like that of man, is typically greatly reduced in winter. Old studies involving noisy snowmobiles indicate a half-mile buffer zone avoided disruption of wintering elk,



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February 1, 1979  
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Department of the Interior's Heritage Conservation and Recreation Service (formerly Bureau of Outdoor Recreation) showed that in the previous year, 8.9 million people in the United States had snowmobiled more than four times, plus another 5.3 million had snowmobiled up to four times.

The survey also explored interest in trying new types of outdoor recreation. Out of 38 recreational activities listed, there were only five in which there was higher latent interest shown than in snowmobiling. More than 5.3 million persons who had never before snowmobiled indicated a strong interest in doing so.

Such growth and acceptance is indicative of the previously unsatiated need for outdoor recreational activities during the winter period. Despite the grandeur and uniqueness of this season, the winter environment has historically been characterized by lessened human mobility, limited social interaction, and a marked decrease in out-of-doors activities.

To fully comprehend the significance of the new vitality snowmobiling brings to wintertime, we must consider the role of recreation in our lives. An accompanying document explores this area in greater detail; however, it is no exaggeration to say that our mental and physical well-being rests on our ability to ease the pressures accumulated during our normal routines. As the trend continues toward highly urbanized and faster paced lifestyles, more traditional forms of release are inhibited.

Sociologists, physicians, and philosophers alike have suggested linkages between lifestyles lacking in healthful recreational activities and such manifestations as greater risk of heart attack, lessened self-confidence, and lowered productivity on the job. Recreational undertakings are highly personal, subjective experiences, thereby further compounding the difficulties faced by public officials in planning and/or providing for such opportunities; thus, no ideal and universal recreational mode can be developed to fulfill the genuine needs of each individual. Finally, climatic conditions which restrict recreational options pose serious societal problems.

Over the past decade, the sport of snowmobiling has acted to revolutionize the once sedentary nature of winter activities. Indeed, outdoor wintertime activities have been removed from the province of the few to the realm of many, an important development in maximizing the benefits derived from recreation.

Policies governing the use of snowmobiles should reflect a clear perception by officials of the multitude of beneficial attributes, both personal and societal, associated with snowmobiling which is, according to Heritage Conservation and Recreation Service figures, one of, if not the, leading American winter outdoor recreation forms.

Mr. W. H. Covey  
February 1, 1979  
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#### ORV Categorization

We strongly oppose any collective assessment of the environmental, social, aesthetic and personal impacts of such diverse activities as snowmobiling, motorcycling, 4-wheel drive vehicle use and ATV operation. The "Detailed Fact-Sheet" prepared by the U.S. Council on Environmental Quality to accompany Executive Order 11989 issued on May 24, 1977 states:

"This amendment [to Executive Order 11644] will not result in an arbitrary or blanket closure of the public lands. Moreover, it will only affect those off-road vehicles actually responsible for environmental damage. Thus, where snowmobiles, for example, cause no harm during the winter, they will not be restricted simply because motorcycles are causing damage during the summer."

The intent of Executive Order 11989 is clear and we urge the Forest Service to continue and expand efforts to evaluate each type of off-road vehicle individually. While the proposed plan does distinguish between snowmobiles and other off-road vehicles, we believe the narrative of the plan could better assess the specific environmental impacts of each activity.

#### Environmental Impact

Perhaps the most important weakness of any collective assessment of "ORV impact" is seen in the area of environmental impacts, a fundamental consideration in public policy and public land planning.

An examination of the environmental effect of snowmobiling is provided in an enclosed document. As a general comment, though, it is useful to note that virtually all of man's recreational activities, from hiking to pleasure driving, have some measure of environmental impact. A more sophisticated concept reflecting the magnitude and significance of such impacts would be more meaningful than simply noting the existence of some unmeasured effect. Here snowmobiles, perhaps unlike other ORV's, may be justifiably considered to have minor consequences except in those areas of an especially critical environmental nature, where man's very presence can prove disruptive.

A snowmobile is operated in a manner different from any other ORV. Its sole season of use is winter; its medium is a layer of snow, blanketing and protecting the land's surface. Despite early accusations that the snowmobile was a prolific despoiler of vegetation and wildlife, scientific studies have largely eradicated such fears.



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while smaller buffers seemed sufficient for other large wintering animals like deer. Because ungulates gather into identifiable confined yards in most instances during winter, snowmobile traffic can be controlled to establish an appropriate buffer which, because of the radical quieting which has occurred in new snowmobiles, now can be safely far less than one-half mile.

The overwhelming majority of those people who enjoy snowmobiling are responsible and concerned citizens who support existing laws designed to deter this problem. In a letter to ISIA, dated April 6, 1978, the Honorable James C. Cleveland, U. S. House of Representatives, addressed this very point:

"Certainly in the state of New Hampshire, snowmobilers have taken their place among legitimate users of our outdoors, and have done a rather good job of policing their own ranks to prevent the activities of a few from seriously harming the sport."

Those familiar with the sport of snowmobiling and the manner in which it is conducted would agree with Dr. Richard Stace-Smith, a research scientist with Agriculture Canada. In an article written for the October-December 1975 issue of *Nature Canada*, entitled "The Misuse of Snowmobiles Against Wildlife in Canada," he stated:

"Most snowmobiling...scarcely impinges on wildlife.

The machines are used legitimately for family recreation, farm work, and to an increasing extent, they are used on trails constructed especially for snowmobiling."

Even the concerns voiced relative to alteration of the sub-nival microclimate must be more broadly understood. Snow compaction by snowmobiles is a minor cause of such temperature drops, because snowmobile operation compacts a very small portion of the total surface area of any land resource. Far more significant microclimate impacts result from fluctuations in snowfall and snowcover, and from ambient temperature variances from winter to winter. This was documented in a study by Dr. Wallace J. Wanek, at Bemidji State College in Minnesota.

Unsubstantiated charges are also often made regarding vegetative impact, covering both mechanical and environmental effects. Again, research provides a perspective to judge the consequences of snowmobiling in this area.

Those not familiar with snowmobiling are inevitably surprised to learn that a snowmobile, which is designed to float on the surface of the snow, exerts dramatically less surface pressure than other types of recreational activity. Specifically, a snowmobile and rider produce no more than one-half pound per square inch in downward pressure. An all-terrain vehicle and

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rider exert three times as much pressure (1.5 psi), a hiker ten times as much (5 psi), a horse and rider sixteen times as much (8 psi) and a 4-wheel drive vehicle and rider sixty times as much (30 psi). (See Table I). With the exception of snowmobiling, all of the other cited recreational activities generally take place under nonsnow conditions, thus exerting pressure directly against the ground surface. But the snowmobile's one-half pound of pressure is further attenuated by an intervening blanket of snow.

TABLE I

Average pounds of pressure per square inch exerted on earth's surface:

Object	Lbs. of Pressure
Four-Wheel Drive Vehicle. . . . .	30
Horse. . . . .	8
Man. . . . .	5
All-Terrain Vehicle. . . . .	1.5
Snow Machine. . . . .	.5

(All vehicle weights considered include 210 lbs. estimated weight of one person and gear.)

In 1973, the University of Wisconsin completed a study on the effects of snowmobile use on agricultural fields. Utilizing study plots in five test areas, the findings of the research team indicated that snowmobile traffic did not affect the fields of winter wheat, alfalfa, red clover and grass legume stands.

The team, headed by J. W. Pendleton, validated the observations of thousands of snowmobiling farmers. The team harvested, weighed and examined alfalfa, Kentucky bluegrass, turfgrass, winter wheat, red clover and birdsfoot trefoil-orchardgrass from both test and control plots. Their comments:

- "Snowmobile traffic on winter wheat showed no effect on grain yield."
- "No differences were found between alfalfa yields from snowmobile traffic and non-traffic areas."



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- "Turfgrass species subjected to snowmobile traffic were Pennlawn red fescue, Illahee creeping red fescue, and Merion and Park Kentucky bluegrass. Snowmobile traffic generally reduced yields at the first harvest date in late April but did not adversely affect later harvest yields."
- "Yields from red clover plots showed no differences due to snowmobile traffic."
- "Snowmobiling caused no differences in total yield or variation in percent grass and lequme stands."

In summarizing, the researchers stated:

"Our treatments may not be exactly similar to what happens on an individual field. In one sense, these trails had traffic far in excess of random snowmobiling on open fields, but perhaps not as high as the traffic on established official trails maintained for public use of snowmobile clubs. We have assumed that vegetation vigor and yield is of less concern on permanent trails than on agricultural lands. However, some of our track areas at Ashland have now received over 350 passes each of the past two winters without decreasing the stand or yield of alfalfa."

The snow depths during the snowmobile runs in the test plots ranged from less than two inches to more than 16 inches, and temperature on testing days ranged from a high of 50 degrees F to a low of -10 degrees F.

Similar research undertaken by Dr. James C. Whittaker and Dennis S. Wentworth, of the School of Forest Resources at the University of Maine, reached the conclusion that "compaction by snowmobiling does not alter the green weight yields of alfalfa in Maine."

In Utah, a study conducted by Professor Joel E. Fletcher, a hydrologist at the Utah Water Resource Laboratory, indicates that snowmobile-induced compaction does not even damage wheat crops:

"Contrary to popular thinking, instead of damaging the wheat crop, the snow compaction caused by the snowmobile treads and by the roller actually increased the yield of wheat. Looking closely at the process, Professor Fletcher found that as a result of compaction, snow mold was eliminated, the ground surface was not frozen hard, and the snow melted and entered the soil at a slow rate so that erosion was reduced..."

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In its 1978 final environmental statement regarding off-road vehicle use of public lands, the U. S. Department of the Interior stated:

"Where snowmobiles are used exclusively over snow on roads and trails, the impact on vegetation is indeed virtually nil."

#### Recreational Opportunity

We believe that recognition should be given to the fact that without a snowmobile, many of nature's premier aesthetic winter sights would be unavailable. Before the advent of snowmobiles, only those few of extremely strong constitution could enjoy the beauty of winter recreation. Limited numbers of people had the needed stamina and vigor to ski and snowshoe extended distances in hostile environments. This meant the young, the old, the frail, the handicapped, and in fact, most Americans had scant opportunities for outdoor winter activities.

Snowmobiling has changed this. The demands of this sport are such that virtually none need be excluded. It is the feeling of equality among all who participate in the sport that makes snowmobiling so appealing. This quality is emphasized in the article Recreation for Special People, printed in the Fall of 1977 "Outdoor Recreation Action," a U. S. Department of the Interior publication:

"Raymond Conley, who is a member of both the New Hampshire House of Representatives and the Governor's Commission on the Handicapped, attempted to conduct a survey to determine the total number of disabled snowmobilers in his state. He found that it was impossible to do so because disabled citizens are so well integrated in the sport and into local snowmobile clubs that there simply has been no reason to highlight their disabilities. Once on the machine, it all comes down to skill, physical conditioning, and a love of the winter outdoors. States Conley: 'This is mainstreaming just as we would like to have it.'"

This great variety of people, of all ages and physical abilities, who quest for healthy outdoor activity during all seasons of the year offers a real challenge to a system that historically has catered to the warm weather user. Innovative land managers like Park Ranger Bob Enns of Manitoba's Spruce Woods Provincial Park and Yellowstone National Park Superintendent John Townsley have accepted the challenge of winter recreation by offering new vistas for snowmobiling. Mr. Enns inaugurated Interpretive Trail Rides which are guided nature tours by snowmobile to learn about



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the geology of the area and the plants and wildlife of the winter ecology. In Yellowstone, guided nature tours and camera safaris over snowmobile routes were tested in two pilot trips late in the season by Mr. Townsley. It is clear that winter visitors to scenic areas appreciate such guided tours as much as warm weather visitors.

The National Park Service has acknowledged the important role snowmobiling can play in winter recreation. In the Management Policies for the National Park Service by the Department of the Interior, 1978, they state:

"In the coterminous United States, snowmobiles may be permitted in units of the National Park System as a mode of transportation to provide the opportunity for visitors to see and sense the special qualities or features of the park in winter."

#### Snowmobiling and Aesthetics

The last two decades have witnessed a marked shift in resource utilization policies. Where once land was managed to solely maximize productivity in the market place, now it is being managed for recreation, wilderness and other non capital-intensive human and environmental considerations. Millions of people are rediscovering what was once taken for granted -- the beauty of nature.

This awareness of our natural surroundings has set up a confrontation between those who advocate extensive development and those advocating massive preservation. In the middle of the conflict stand the recreationists, trail bikers, campers, hikers, snowmobilers, wanting neither development that will further encroach on their all too few acres of recreational lands, nor preservation in the form of wilderness that locks out many favorite pastimes.

Snowmobilers, and other outdoor recreationists, seek the same natural qualities as do the wilderness advocates. They display initiative by leaving behind the easy chair and television for the challenge of outdoor activity in the winter snow. They appreciate and respect the environment, wishing to preserve its naturalness for others to enjoy. The typical snowmobiler's impact on the environment is as minimal as the machine he rides, as testified by Jack Anderson, Yellowstone's former superintendent:

"Trash?--We experience almost no trash from the winter user. He is probably one of the best users of the Park and I think that every one of my rangers and maintenance people would verify that statement."

The pressure for competing uses of our resources continues to grow stronger. Management plans regarding land use should be

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sophisticated enough to minimize irreversible resource commitments and yet maximize fulfillment of human needs in all sectors. Public land use policy should take into account changing needs and priorities for the land, bearing in mind that our priorities ten years from now may be vastly different from the present.

#### Sound Emissions

Snowmobile sound levels have been reduced 94% in recent years. Snowmobiles produced since February 1, 1975 and certified by the Snowmobile Safety and Certification Committee's (SSCC) independent testing company emit no more than 78 dBA from a distance of 50 feet. Automotive Engineers (SAE) J192a procedures. Additionally, all SSCC-certified snowmobiles produced after June 30, 1976 emit no more than 73 dBA at 50 feet while travelling at 15 mph under SAE J1161 procedures. Presently, approximately 90% of all snowmobiles produced for sale in North America are certified by SSCC's independent testing company as meeting these sound emission standards. An attached position paper elaborates on developments in this area.

A study conducted by the SSCC and the U. S. Testing Company for the benefit of the Minnesota Department of Natural Resources demonstrated snowmobile sound at various distances. A relevant portion of the study report follows:

"The masking effect of trees was illustrated when two of the 1976 model snowmobiles were moved into the woods edge, on a course which led 1/4 mile beyond the crest. The trail proceeded through a dense stand of hardwoods that were bearing leaves. Snowmobile noises could not be discerned and could not be measured over the crest of the ridge."

All of this means that the earlier problem of excessive noise from snowmobiles is no longer a major concern. The governor of the State of New Hampshire, the Honorable Meldrim Thomson, Jr. had this to report to ISIA on August 9, 1977:

"I am of the opinion that snowmobile noise is no longer a major source of problems here in New Hampshire. True, the early machines were associated with excessive noise; this naturally caused a problem, one that even the operators of the machines were not happy with.

"From my own observations, and I am a frequent rider of our state trails, I no longer consider the noise a point of contention....I find the newer machines very acceptable and realize that future machines will have noise levels even further reduced in meeting our requirements and those of other states.



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"In answer to your question 'Should the Federal government preempt all state snowmobile noise regulations by issuing a federal noise standard?', my answer is a firm NO."

Operated in a normal, considerate manner, the newer, quieter 78 dBA snowmobiles cannot be heard from inside a home. From a distance of 50 feet, new snowmobiles generate between 67 and 73 dBA at 15 mph. For comparison purposes, normal conversation at three feet produces 70 dBA.

Snowmobiles are now among the quietest powered vehicles. This reduction should be recognized in the plan because it facilitates simultaneous use of areas by several varieties of winter recreationists.

#### Compatibility with Other Recreation Forms

Because of the seasonal nature of the sport, snowmobiling is one of the most compatible of all recreation forms. Trails used by equestrians, bicyclists, hikers, and trail bikers are readily usable by snowmobilers in winter, as are roads not plowed or used during snow-covered periods. Surface preparation requirements are flexible and rudimentary. More importantly, with the disappearance of the snow, traces of snowmobile activity are eliminated. Trail markings are the only substantial exception to this, and even these can be removed each spring if desired.

Compatibility with other wintertime recreational users is less complete. This does not imply conflict among users, though. Shared facilities -- parking lots, toilet facilities, warming huts, and other such services -- are easily arranged. Even limited joint-use can be made of certain access, or corridor trails with cross-country skiers. However, for safety purposes and to ensure maximization of the recreational experiences of each group, segregation of snowmobilers and cross-country skiers seems advisable.

Popular opinion tends to reflect the belief that snowmobilers and skiers are rivals. However, feelings of animosity are becoming increasingly rare as facilities for each sport are provided. The St. Paul Pioneer Press in its article of January 22, 1978, titled "Cross Country Skiers Gain Ground," quoted an official of Minnesota's Ski Touring Federation:

"The relations between the cross-country skiers and the snowmobilers never should have been bad in the first place," Maloney said. "The problem the skiers had in the beginning was not with the snowmobilers but with the state because of the way public lands were being allocated."

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Throughout the snowbelt, "sno-traveller" clubs, comprised of skiers, snowmobilers and those who enjoy both sports, are developing. They cooperate in trail building and maintenance for each sport and devote their combined energies to social events, to making winter a time of healthy fun for all.

In deciding on allocations between wintertime uses, several factors seem highly relevant. First, certainly much consideration must be given to the proportion of demand, measured in recreation visitor-days. Second, consideration should be given to providing highly desirable areas of use for each user group. Finally, in balancing availability of the land resource between uses, consideration must be given to those areas permanently closed to the snowmobiler, including current Wilderness areas, primitive areas, new Wilderness study areas and national scenic trails, which are open to wintertime non-motorized uses but not to snowmobilers.

#### Economic Impact

The impact of snowmobiling on snowbelt economies is rapidly gaining recognition. Snowmobilers in Canada and the United States spend over \$1.8 billion on their sport annually, literally rejuvenating the economies of countless snowbound communities.

The Town of Webb, New York, a community once solely dependent upon summer tourism, found that the development of a trail system has attracted snowmobilers from 21 states and provinces. As a result, winter unemployment has declined 10% and winter commercial income during the height of the snowmobile tourist months (January/February) now equals summer income for a like period (July/August). In 1967 only six motels and restaurants were open during the winter months; now more than 50 are open, including three hotels.

Employees of Northwest Orient Airlines recently estimated that for every skier flying into Bozeman, Montana, to enjoy the fun of the popular Big Sky ski area, during the 1977-1978 winter season, three persons arrived on their planes to visit Yellowstone National Park by snowmobile.

Reporting on a statewide study of snowmobiling, the Chief of Planning of the Wyoming Recreation Commission concluded:

"Snowmobiling not only pulls its own weight, but the potential tourism and winter-related economic impact are unbelievable in the Western United States. If just over 8,000 snowmobilers generated over six million dollars in the state of Wyoming in just one season, you can bet your boots that the people of Wyoming will be willing to invest a little of their tax money in such a going enterprise."



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Snowmobiling is also responsible for "spin-off" economic benefits. The equivalent of more than 110,000 full-time jobs for North American citizens have been created. The jobs enable citizens to further stimulate the economy through additional expenditures on goods and services and also provide significant income tax revenues to provincial, state and federal treasuries. Snowmobile-related businesses, (manufacturers, suppliers, distributors, dealers, resort and hotel facilities, etc.) contribute millions of dollars in corporate tax revenues. Approximately \$85 million in sales and gas tax revenues are received each year by provinces and states directly from expenditures on the sport of snowmobiling.

The potential for positive economic effects from snowmobiling has not gone unnoticed by the federal government. The U. S. Department of Labor has grant programs that will fund snowmobile trail building projects to create jobs and encourage snowmobiling to help stimulate a slack winter economy. Under Title IV of the Comprehensive Employment and Training Act, snowmobile trail building projects have been funded. An example reported in CETA Title IV Project Description Report for the U. S. Department of Labor, June 1977:

"The Rural Minnesota CEP Otter Tail Trails Association project provides for the development of a system of safe and scenic snowmobile trails to enhance the recreational opportunities in the community and to promote winter tourism. The project also lays the groundwork for the creation of cross country ski trails.

"This type of project will be of greatest benefit to northern communities with summer resort areas, but it will also be worthwhile in other communities. Communities with resort facilities --restaurants, motels, clubs--will gain both recreational and economic benefits. The greatest benefit to other communities will be safer, more enjoyable recreational outlets for their residents....In many communities such projects would also contribute to environmental protection and reduce community disputes over trespassing violations."

The effectiveness of programs such as CETA comes from the emphasis that is placed on community involvement. A snowmobile trail building project is successful because it is coordinated with local land managers and existing trails. With the vast acreage under its management, we feel it is especially important to coordinate projects with Forest Service management plans. By working with the community, the development of a trails system can be better facilitated and grant programs will yield greater benefits.

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We believe this important aspect of snowmobiling should be considered by forest officials in their plans for Siskiyou National Forest.

#### Conclusions and Recommendations

The national policy of the U. S. Forest Service prescribes generally open access to forest lands by those electing ORV-based recreational endeavors. In this spirit, we believe the recommended Alternative D for the management of the Rogue-Illinois Planning Unit and Alternative D for the management of the Chetco-Grayback Planning Unit are correct in suggesting the imposition of only those restrictions deemed necessary for environmental protection. Of course, environmental, social and archaeological considerations will justifiably preclude total use.

The Forest Service has traditionally displayed great wisdom in evaluating alternatives available under the multiple-use concept. The Chetco-Grayback and Rogue-Illinois Planning Units account for more than two-thirds of the total Siskiyou National Forest. These 910,832 acres of land under the National Forest Service jurisdiction offer unique opportunities for recreation particularly in the winter where average snowfall in the eastern areas and higher elevations is such that it provides opportunities for snowmobiling. On the basis of current needs for winter recreation opportunities, current provisions for snowmobile use should be continued and expanded except in such critical zones as big game yards and designated wilderness areas already closed to motorized recreational use. Because of its unique characteristics, the snowmobile has been and should continue to be treated separately from all other motorized vehicles within recreation management plans for Siskiyou National Forest.

ISIA is highly involved in the land use planning processes of such agencies as the U. S. Forest Service and the National Park Service. Invariably, our reviews document the fact that the chief recreation-associated environmental concerns are attributable to excessive summertime usage. We believe snowmobiling offers an opportunity for significant additional environmental protection if used as a means to consciously alter traditional recreational patterns by encouraging a shift from peak-season recreational use to the remainder of the calendar year. Single season orientation compounds management costs and difficulties. We urge Forest management to adopt the imaginative programs involving snowmobiles in Spruce Woods Provincial Park and Yellowstone National Park as a possible way to ameliorate this pervasive problem.

We agree strongly with the recent comment of the U. S. Heritage Conservation and Recreation Service on the desirability of augmented winter recreation opportunities through snowmobiling:



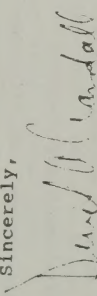
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"There is a beneficial impact which snowmobiling shares with all other winter sports: When compatible with other land management goals winter recreation use increases the sustainable annual yield of recreation experiences (say visitor-hours) which can be obtained from a given area of land. This, in turn, may result in a more efficient use of labor and capital in both the public and private sectors."

In conclusion, we subscribe to the general concept of Alternative D as described in both draft plans. While the plans do indicate a recognition of snowmobiling as a winter recreational opportunity, we urge the inclusion of further information in final plans on snowmobiling to reflect full basis for snowmobiling-related land use decisions.

To provide you with further information on the sport of snowmobiling, we have also included a copy of the Snowmobiling Fact Book, an easy reference guide, and An Assessment of the Snowmobile Manufacturing Industry and Sport 1978.

We hope these comments and the enclosed materials are helpful to Siskiyou management efforts to provide maximum recreational opportunities while ensuring adequate environmental safeguards. We hope to have the opportunity to expand upon these thoughts in correspondence with you and your staff in the future.

Sincerely,  
  
Derrick A. Crandall  
Vice President  
Government Affairs

DAC/pms  
Enclosures: (5)  
cc: Key Oregon Snowmobilers



Department of Energy  
Region X  
1992 Federal Building  
915 Second Avenue  
Seattle, Washington 98174  
(206) 442-7285

February 1, 1979

William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

The Department of Energy (DOE) appreciates the opportunity to comment on the Draft Environmental Statement for the Chetco-Grayback Planning Unit in Curry County, Oregon.

Four of the responsibilities assigned to the DOE when Congress enacted the DOE Organization Act (42 USC 7101) were:

- (1) To promote efficiencies in the use of energy resources (15 USC 764(b)(7));
- (2) To promote maximum possible energy conservation measures in connection with the activities within the jurisdiction of the heads of other Federal Departments and agencies (42 USC 7112(2));
- (3) To place major emphasis on the development and commercial use of solar, geothermal, recycling and other technologies utilizing renewable energy resources (42 USC 7112(6)); and,
- (4) To provide for the cooperation of Federal, State, and local governments in the development and implementation of national energy policies and programs (42 USC 7112(11)) (emphasis added).

This Regional Office is utilizing the EIS comment process as one way to fulfill these responsibilities assigned to the DOE by Congress. This Office, therefore, reviewed the referenced Draft EIS to determine not only the specific impact of the alternatives on energy consumption, but also to assess: (1) the adequacy of the broad consideration of energy use, (2) the type and nature of energy use, and (3) the consideration



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given to energy conservation/efficiency and renewable energy resource use. While the EIS does consider some energy issues, there are several areas where we believe a greater consideration of energy impacts should be reflected in the EIS.

More specifically, the EIS does not consider and specify the energy effects associated with the alternative land management plans. Management of a forest and its resources does have significant energy use implications, some subtle and others more obvious.

For example, the alternatives which would be associated with greater road construction would generally require greater initial energy investment than those alternatives which would require little or no new road construction. However, an alternative which provided for more extensive road construction might still be more energy efficient over the long-term if it resulted in greater efficiency of vehicle use (more direct routes, etc.). Therefore, an optimum combination of initial energy investment (construction period) and long-term energy use should be sought. Such considerations should be incorporated into the Final Environmental Impact Statement.

To assist you in evaluating the alternatives, this Office has performed some rough calculations of the roadway energy investments of the five land management alternatives under consideration. Results of these calculations follow:

Alternative	
A	- 16 billion Btu/year
B	- 14 billion Btu/year
C	- 16 billion Btu/year
D	- 19 billion Btu/year
E	- 21 billion Btu/year

Note that these are only rough estimates and that, as road surfaces and grade profiles vary, the investment would also be influenced.

In addition to roadway energy investments, maintenance of the roadway should be considered. Our estimates of energy use related to maintenance are as follow:

Alternative	
A	- 29 million Btu/year
B	- 25 million Btu/year

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C	- 30 million Btu/year
D	- 33 million Btu/year
E	- 33 million Btu/year

Trail maintenance can also involve a substantial energy investment; this energy use should also be mentioned in the Final Environmental Impact Statement. Maintenance of the current 235 miles of trail would involve an estimated 2 billion Btu/year.

The EIS also does not presently include a consideration of the indirect energy effects of increased road construction, such as increased motorized recreation. The energy effects of the alternatives will differ due to the variation in recreational experiences they would provide. This consideration should be included in the Final Environmental Impact Statement. To assist in evaluating the alternatives, rough estimates of the energy which would be consumed by all types of recreationalists in the study areas have been prepared by this Office. These estimates (in billion Btu/year) follow:

Alternative	Developed Site		Developed (Road Related)		Dispersed (Trail Related)	
	Recreation	Wilderness Recreation	Recreation	Wilderness Recreation	Recreation	Wilderness Recreation
A	30	1,800	460	54		
B	29	1,700	250	160		
C	36	2,900	460	54		
D	38	3,200	460	54		
E	39	3,400	460	54		

An additional energy investment would result from construction of any campgrounds, ponds, or fences required. Due to a lack of information on the nature of these facilities, this Office was unable to estimate their associated energy investment.

The energy consumed by timber production and timber harvest activities will also vary with the land management decisions under consideration. Rough estimates of the annual energy consumption associated with potential timber harvesting in the study area follow:

Alternative	
A	- 400 billion Btu/year



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- B - 390 billion Btu/year
- C - 530 billion Btu/year
- D - 550 billion Btu/year
- E - 580 billion Btu/year

The relationship of energy use effects to employment effects of the alternatives should also receive consideration in the Final Environmental Impact Statement. For example, it requires between 300 and 400 million Btu to support one sawmill employee for twelve months. In contrast, new employees of the Forest Service would each require about 150 to 200 million Btu per year in support of their jobs. Service employees (e.g., hotels, motels, cafes, sporting goods stores, etc.) would each require between 50 and 160 million Btu per job per year. Since the alternative land management plans would affect the Curry County area economy in different ways and result in different employment distributive impacts, the alternatives would directly affect energy use in the area. The energy effects of different employment distribution impacts should be considered in the Final Environmental Impact Statement.

Comparisons of the preceding tables indicate that decisions concerning use of National Forest resources should not be divorced from energy considerations. For example, the selection of Alternative (B), in lieu of Alternative (D) (the preferred alternative), would lead to an annual decrease in energy use of 1,800 billion Btu, equivalent to approximately 310,000 barrels of crude oil or the annual end use energy consumption of about 18,000 new all-electric Pacific Northwest homes.

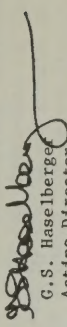
Finally, we suggest that the consideration of energy use be expanded in the discussion of adverse effects which cannot be avoided. Similarly, any discussions of the adverse effects of logging operations, road construction, slash disposal, and motorized vehicle use should include mention of their adverse energy impacts. Use of energy will also represent a resource commitment and should, therefore, be noted in greater detail in Chapter V of the Final Environmental Impact Statement. The EIS should also indicate that measures will be taken to mitigate excessive or unnecessary energy consumption due to the implementation of the alternative eventually selected.

This Office again thanks you for this opportunity to review and comment on your EIS. We trust our comments will be helpful to you in the preparation of the Final Environmental Impact Statement, and in your further consideration

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of the alternatives. We recognize that the energy impacts of the land management alternatives under consideration are often "hidden," yet they are pervasive. If we may be of further assistance, please do not hesitate to contact us.

Sincerely,

  
G.S. Haselberger  
Acting Director  
Program Operations Division

cc: Lee Johnson, Acting Director, External Affairs Division, Region X,  
DOE

Dr. Robert Stern, Director, Division of NEPA Affairs, Office of the  
Assistant Secretary for Environment, NDOE

Paul Brumby, Director, Federal Programs Office, Office of the  
Assistant Secretary for Conservation and Solar Applications, NDOE

F.A. Leone, Division of NEPA Affairs, Office of the Assistant  
Secretary for Environment, NDOE



9545 Taklimala Rd  
Cave Junction OR 97523

Forest Supervisor  
Siskiyou National Forest  
PO Box 440  
Grants Pass OR 97526

Dear Sir:

In response to the draft environmental statement on the Chetco Grayback Planning Unit, I do not support alternative D because it does not protect the wooded area east of the present Kalmiopsis wilderness. I think alternative C is far preferable to alternative D because it permits some timber harvest & yet protects the scenic and other special qualities. I would like to see off road vehicles banned. I think the forest should be treated as a renewable resource, and areas that will be impossible to regenerate should not be cut. Erosion of the soil ~~and timber~~ should be fought.

Many people have put a lot of work into this EIS. Thank you.

Elaine Zebinski

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

1220 S. W. Third Avenue, 16th Floor, Portland, OR 97204

February 6, 1979

Mr. William H. Covey  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, Oregon 97526

Dear Mr. Covey:

We have reviewed the draft environmental impact statement for the Chetco-Grayback Planning Unit and have no comments to offer.

The opportunity to review and comment on this document is appreciated.

Sincerely,

*William H. Nutt*  
Guy W. Nutt  
State Conservationist

cc: Director, Office of Federal Activities (5)  
Environmental Protection Agency, Wash., D.C.  
Administrator, SCS, Wash., D.C.

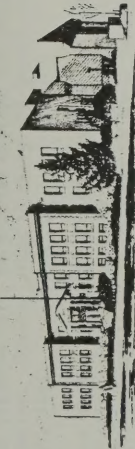




JOSEPHINE COUNTY OREGON



(503) 476-8881



COURTHOUSE

GRANTS PASS, OREGON 97526

February 14, 1979

William H. Covey  
Siskiyou National Forest  
P.O. Box 440  
Grants Pass, OR 97526

SUBJECT: Chetco-Grayback D.E.S.

Dear Mr. Covey:

The Board of County Commissioners of Josephine County, mindful of the importance of federal lands to the people of Josephine County, hereby affirms its support for Alternative D, the Forest Service preferred alternative, for the Chetco-Grayback planning unit.

The professional staff of the Josephine County Forestry Department examined much of the area, especially during the RARE II public comment process. It was concluded that no roadless area would materially enhance the wilderness preservation system and that the trade-off in economic and non-wilderness recreational opportunities could not be justified.

Alternative D conforms with these conclusions. Its resultant slight drop in allowable cut, from 58,000 MBF to 55,000 MBF, is viewed as reasonable under the recommended administrative designation of certain areas for other than multiple-use management. The Board supports such designations for the areas in question, including designation of the Youngs Peak area as primarily recreational, and the recommended additional areas of protected fisheries/watershed and protected recreational/fisheries.

As noted in the county's RARE II statement, "further study" designation of any area is strongly opposed and final action on and implementation of this plan, without delay, is urged.

Sincerely,

BOARD OF COUNTY COMMISSIONERS

*Ben Kilpatrick*  
*Mary E. Benediti*  
*George A. Calvert*

Board of Commissioners  
GEORGE A. CALVERT  
BEN KILPATRICK  
MARY E. BENEDETTI  
Duane Schultz, Legal Counsel



OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Intergovernmental Relations Division  
306 State Library Building, Salem, Oregon 97310  
Ph: 378-3732

PNRS STATE REVIEW

Project #: 7811 4 800

Return Date: JAN 12 1979

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW  
DRAFT STATEMENT

- ( ) This project does not have significant environmental impact.
- ( ) The environmental impact is adequately described.
- ( X ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.
- ( ) No comment.

REMARKS

Comments are attached.

Agency

FISH

By

*Gregory M. ...*  
ENVIRONMENTAL MANAGEMENT SECTION 2/8/79



## OREGON DEPARTMENT OF FISH AND WILDLIFE

Staff Report

CHETCO-GREYBACK PLANNING UNIT

Draft Environmental Impact Statement

7811-4-800

General Comments

We have completed our review of the Chetco-Greyback Planning Unit Draft Environmental Impact Statement and offer the following comments and recommendations:

1. The established Land Management Areas afford protection to most resource habitat types but do not specifically address critical wildlife habitat. An additional land management area should be designated that would protect winter ranges, provide an adequate cover/forage ratio for big game, and maintain sufficient old growth and snag habitat. This designation could still allow controlled timber harvest but with limited construction of temporary roads. By allocating this land management area to identified wildlife habitat within the planning unit, this valuable resource can be protected without significantly restricting timber harvest.
2. The DEIS should provide a more comprehensive and objective impact evaluation of the proposed transportation system. Road design and location will have a major impact on water quality and runoff patterns because of the steep terrain and generally unstable soils.
3. The DEIS should describe how the adverse environmental impacts can be mitigated.

Specific Comments

1. Page 48, paragraph 3. The comment that "There should be little conflict with wildlife management since use of forage by cattle is only computed for slopes of less than 45% and the forage production on steeper slopes was not considered" is questionable. We suggest there could be a conflict with wildlife since deer feed extensively in areas with less than 45% slope. The conflict would be reduced if livestock were removed from the range early enough to allow regrowth prior to winter deer use.

2. Page 48, paragraph 4. This paragraph implies that summer range is not a critical element for maintaining wildlife populations. In many situations, particularly on the west side of the Cascades, the summer and winter ranges occupy the same geographic area. Consequently, the amount of forage remaining on the summer range is the key to the productivity of the winter range. We believe both range types are equally important for the welfare of big game populations.
3. Page 79, Table T-1. The table of endangered and threatened species should include the northern spotted owl.
4. Page 118, paragraph 6. This paragraph states that under the preferred alternative "the potential for anadromous fish production over a 100-year rotation may decline to approximately 95% of the current level of fish production." This statement does not appear consistent with the forest's management goals to protect and, where practical, enhance fish and wildlife habitat and improve water quality for the fisheries resource (page 84, goals 2 and 6).
5. Page 132, Table VI - 2. This table shows several apparent conflicts. The preferred alternative plans an additional 390 miles of roads in the planning unit but the projected sediment load is less than the present situation. This is not consistent with past experience. Also, the preferred alternative's proposed reduction of old-growth timber and snags would not realistically result in an increase in old-growth dependent wildlife species and cavity nesters.
6. Page 31, Table G-3. The figure of 25,000 fall chinook in the Chetco River should be changed to 15,000 fish.

Recommendations

From the standpoint of adequately addressing fish and wildlife needs, we propose the selected alternative incorporate the following management policies and constraints:

1. Establish a timber harvest level, particularly in the RARE II roadless areas, that will maintain current fish production potentials and preserve existing thermal, escape and rearing cover for wildlife.
2. Minimize road construction and implement a road closure program.
3. Employ those timber harvest methods which will minimize impacts on soil and water resources.
4. Consider big game equally when allocating forage for livestock.
5. Maintain sufficient snags to provide for cavity-dwelling birds and mammals. This plan should take into consideration removal of snags for safety and firewood. It should provide habitat at a level capable of sustaining strong, viable populations of snag-dependent species.



6. Allocate adequate old-growth timber areas, distributed throughout the planning unit, to provide habitat for old-growth dependent species. Develop plans to carry old-growth forest through future rotations.
7. Provide for close coordination with Oregon Department of Fish and Wildlife biologists during the early stages of developing land-use and timber sale plans relative to their impacts on fish and wildlife resources.
8. Consider the following suggestions in managing the designated PARE II roadless areas:
  - a. North Kalmiopsis - Because of the diverse nature of this large tract, a single management recommendation cannot cover all fish and wildlife needs. Therefore, our comments address smaller areas, as identified.
    - 1) Indigo Creek Drainage: It is recommended that this unit be managed on a multiple-use basis with the following recommendations made in regards to logging activities:
      - a) The size of logged unit should be dependent upon the shape of the cutover area; narrow units provide more edge-effect and could include more acres than a circular area. Regardless of the shape, standing timber should be available within 200 yards of the logged unit.
      - b) Cutting programs should be planned so that various age units are available to the animals. An ideal time spacing should be three years between logging activities in the same general area with strips of standing timber at least 100 yards wide being left between logged units. This timber should not be removed until conifer reproduction or shrubs in an adjacent cutover have reached sufficient size to serve as cover.
      - c) Strips of protective vegetation should be retained along all streams to prevent excessive erosion. Logs should not be skidded across or down waterways. Care should be taken to prevent logging debris from entering the stream.
      - d) Skid roads, landings and shoulders of secondary roads should be seeded with palatable grasses and/or legumes. These sites should be fertilized with urea as required.
      - e) Sites with dense stands of alder, vine maple, cascara or other shrubby vegetation should be sprayed with a nontoxic herbicide. The size of area sprayed should not exceed 150 acres and sufficient shrub growth should be left as cover. Annual spraying of these sites is not recommended.

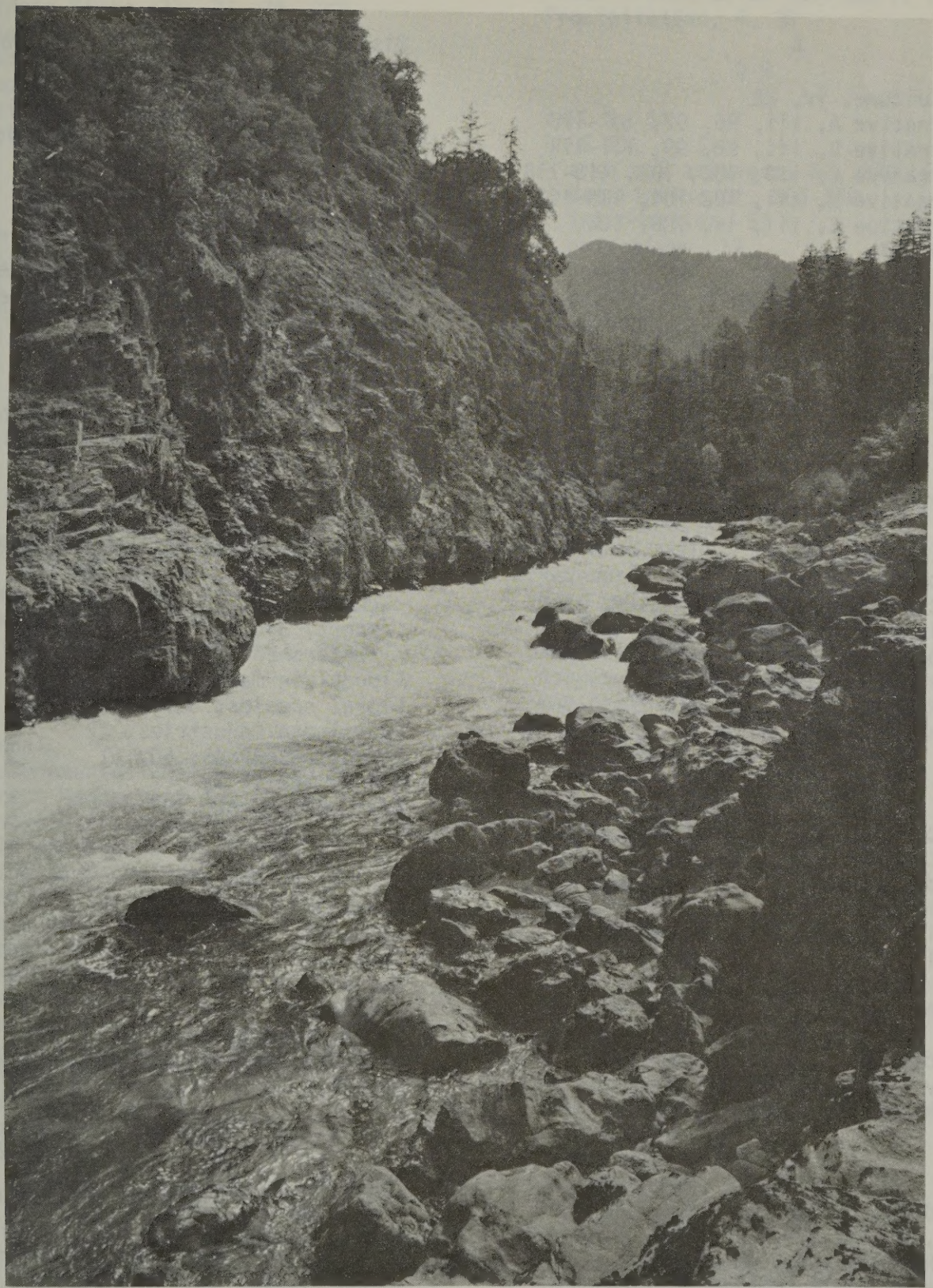
- f) Following logging, skid roads and other temporary roadways should be closed to vehicular travel. Secondary spur roads off the main roadways should also be closed until needed for future logging operations.
- g) Protect snags and/or dead top trees.
- 2) Silver Creek Drainage: Because of the steep, unstable nature of the area, it is recommended that the Silver unit be managed as a roadless area with emphasis on its scenic and recreational values. In this regard, a trail should be constructed from Hobson Horn, down the North Fork Silver Creek to its mouth.
- 3) Lawson Creek Drainage: Forage production would be enhanced by a well-planned timber removal program. However, it is recommended that logging techniques be utilized that do not require road construction or cause undue soil disturbance. Seeding the area following logging would help stabilize the soil and provide wildlife forage.
- b. South Kalmiopsis - As in the case with the North Kalmiopsis tract, Department of Fish and Wildlife comments on the South Kalmiopsis will cover specific areas within the large, unroaded unit.
  - 1) Baldface Creek Drainage: It is recommended that this unit be managed on a multiple-use basis, with emphasis on protection and maintenance of fish and wildlife habitat. Because of unstable soils, roads should be constructed only on ridgetops. Following logging, roads should be physically closed and seeded to palatable grasses and/or legumes. Landings, skid roads, road shoulders and other areas of soil disturbance should also be revegetated. It is recommended that brushfield spraying be conducted to provide game habitat in areas not suited to Douglas fir regeneration.
  - 2) Oregon Mountain: It is recommended that this unit continue to be managed for watershed protection, timber production, recreation use and game range. If timber is removed, precautions should be taken to protect against erosion. Soils are shallow and vegetation will not readily become reestablished.
- c. Squaw Mountain and Windy Valley - It is recommended that this unit be managed on a multiple-use basis. Wildlife benefits can be derived from a well-designed timber removal program. Controlled access is also recommended to prevent wildlife harassment problems in the future and to provide a more challenging hunting experience. The following recommendations are designed to meet these objectives.
  - 1) Following timber removal, roads should be physically closed until needed for future logging operations.



- 2) The size of logged unit should be dependent upon the shape of the cutover area; narrow units provide more edge-effect and could include more acres than a circular area. Regardless of the shape, standing timber should be available within 200 yards of the logged unit.
- 3) Cutting programs should be planned so that various age units are available to the animals. An ideal time spacing would be three years between logging activities in the same general area with strips of standing timber at least 100 yards wide being left between logged units. This timber should not be removed until conifer reproduction or shrubs in an adjacent cutover have reached sufficient size to serve as cover.
- 4) Strips of protective vegetation should be retained along all streams to prevent excessive erosion. Logs should not be skidded across or down waterways. Care should be taken to prevent logging debris from entering the stream.
- 5) Skid roads, landings and shoulders of secondary roads should be seeded with palatable grasses and/or legumes. These sites should be fertilized with urea as required.
- 6) Snags and dead-top trees should be protected for wildlife species that require such habitat.
- d. Kalmiopsis Addition - Because of the relatively small size of this area, specific recommendations for management of fish and wildlife are not practical.
- e. Mt. Emily - Because of the high degree of development around this area, its maintenance in a roadless condition will provide much needed escape cover for a variety of wildlife species. In addition, a back country recreational experience can be provided to hunters, photographers, and others by managing this as a roadless area. The following recommendations are submitted to achieve these objectives:
  - 1) Timber sales should be designed for a minimum of road construction. Following timber removal, all roads should be physically closed.
  - 2) Areas of low timber value and nonproducing sites such as rocky outcroppings should be maintained in a natural condition. The more that these sites are affected by road building and other silvicultural practices, the more important commercial timber becomes as a wildlife cover source.
  - 3) Leave a good mix of old growth timber for those wildlife species requiring such habitat, and develop logging plans that will assure continuance of such a mix.

- 4) In timber removal programs, the size of logged unit should be dependent upon the shape of the cutover area; narrow units provide more edge-effect and could include more acres than a circular area. Regardless of the shape, standing timber should be available within 200 yards of the logged unit.
- 5) Cutting programs should be planned so that various age units are available to the animals. An ideal time spacing would be three years between logging activities in the same general area with strips of standing timber at least 100 yards wide being left between logged units. This timber should not be removed until conifer reproduction or shrubs in an adjacent cutover have reached sufficient size to serve as cover.
- 6) Strips of protective vegetation should be retained along all streams to prevent excessive erosion. Logs should not be skidded across or down waterways. Care should be taken to prevent logging debris from entering the stream.
- 7) Skid roads, landings and shoulders of secondary roads should be seeded with palatable grasses and/or legumes. These sites should be fertilized with urea as required.
- 8) Snags and dead-top trees should be retained for wildlife species that require these for nesting or perching.
- f. Indian Creek and North Fork Smith - No recommendations. The small size of the unit makes meaningful management recommendations impractical.
- g. Packsaddle - No recommendations are submitted for management of fish and wildlife.





Illinois River



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# X. APPENDIX

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1/ Policy and standards as of June 1, 1976. However, policy and standards evolve over time as new information and concerns emerge. At any given time, the most current policies and standards will be applicable.



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2	2. Objectives and Scope
3	3. Methodology
4	4. Results and Discussion
5	5. Conclusions
6	6. References
7	7. Appendix
8	8. Glossary
9	9. List of Contributors to the Environmental Statement
10	10. National Forest Management System
11	11. Estimated Woodland and Values of Fisheries in the National Forest
12	12. Policy and Standards as at June 1, 1985
13	13. Standards evolve over time as new information and knowledge emerge. At any given time, the most current policies and standards will be applicable.



1. Proposed DEQ Water Quality Standards

Oregon Department of Environmental Quality (DEQ) water quality standards for the Rogue River Basin adopted pursuant to ORS 468.735 are applicable to those lands in this Planning Unit within the Rogue Basin. A portion of those standards follow: 1/

"No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Rogue River Basin:

"A. Dissolved Oxygen (DO):

- 1) Fresh Waters: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes."

"B. Temperature:

- 1) Fresh Waters: No measurable increases shall be allowed when stream temperatures are  $58\frac{1}{4}$  F. or greater; or more than  $0.5\frac{1}{4}$  F. increase due to a single-source discharge when receiving water temperatures are  $57.5\frac{1}{4}$  F. or less or more than  $2\frac{1}{4}$  F. increase due to all sources combined when stream temperatures are  $56\frac{1}{4}$  F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable."

"C. Turbidity (Jackson Turbidity Units, JTU):

No measurable increases in natural stream turbidities shall be allowed when natural turbidities are less than 30 JTU, and no more than a 10 percent cumulative increase in natural stream turbidities shall be allowed when stream turbidities are more than 30 JTU, except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable."

"D. pH (Hydrogen Ion Concentration): pH values shall not fall outside the range of 6.5 to 8.5."

1/ Excerpts from the "Proposed Water Quality Management Plan for Rogue River Basin" issued by the Oregon Department of Environmental Quality in February, 1976.



## 2. Siskiyou Watershed Data

The Illinois River has been gaged at Kerby (1926-1978), Selma (1956-1967), and Agness (1960-1978) by the U.S. Geologic Survey. Maximum, minimum, and mean monthly flows have been averaged for these three stations during their periods of record (Tables X - A-1, X - A-2, and X - A-3). Table X - A-4 provides water yield data for the watershed. Many of the larger streams were measured for low flows during the drought of 1977.

Table X - A-1. Summary of Illinois River Watershed Data Gathered Near Kerby (March, 1926 to September, 1976.) 1/

Month	Mean Discharge (cubic feet per second-cfs)		
	Maximum	Minimum	Mean
January	7,375	293	3,007
February	7,833	779	2,658
March	5,499	655	2,176
April	3,770	361	1,570
May	2,439	199	974
June	1,270	82	393
July	296	35	102
August	127	16	48
September	105	17	43
October	3,363	29	285
November	6,344	40	1,291
December	9,242	183	2,461
Mean Annual	2,372	576	1,253

1/ Summary of U.S. Geological Survey Water Resource Data for Oregon.

Table X - A-2. Summary of Illinois River Watershed Data Gathered Near Selma (October, 1956 to February, 1968) 1/

Month	Mean Discharge (cubic feet per second-cfs)		
	Maximum	Minimum	Mean
January	9,953	1,115	5,168
February	15,010	2,516	4,523
March	7,566	1,340	4,272
April	6,776	1,448	3,145
May	4,517	764	1,820
June	915	328	562
July	267	138	188
August	130	65	106
September	124	74	98
October	2,732	86	556
November	4,490	161	2,028
December	16,430	432	4,129
Mean Annual	3,735	1,709	2,335

1/ Summary of U.S. Geological Survey Water Resource Data for Oregon.



Table X - A-3. Summary of Illinois River Watershed Data Gathered Near Agness (October, 1960 to September 1976). 1/

Month	Mean Discharge (cubic feet per second-cfs)		
	Maximum	Minimum	Mean
January	25,660	2,047	11,599
February	15,420	4,479	8,341
March	14,550	2,187	8,295
April	11,750	1,653	4,899
May	8,195	1,116	2,851
June	1,690	510	947
July	574	254	383
August	384	155	242
September	403	149	219
October	4,696	167	838
November	23,060	665	5,489
December	26,830	3,218	9,600
Mean Annual	7,799	2,792	4,464

1/ Summary of U.S. Geological Survey Water Resource Data for Oregon.

Table X - A-4. Streamflow Records In or Adjacent to the Chetco-Grayback Planning Unit. 1/

Location	Water Years	Adjusted Area (Sq.Mi.)	Mean Flow			Extreme Flows	
			(Area Inch)	(cfs)	Thousand (Acre-Ft.)	Peak (cfs)	Low
Sucker Creek	1941-76	83.9	39.11	241	175	19,300 <u>2/</u>	12
Althouse Creek	1947-53	24.3	39.94	71.5	51.8	2,680	3.2
E. Fork Illinois	1928-76	42.3	56.48	176	127	15,700 <u>2/</u>	4.6
W. Fork Illinois	1944-76	42.4	70.61	221	162	16,100 <u>2/</u>	1.5
Illinois River near Kerby	1927-76	380	46.02	1287	1000	92,200 <u>2/</u>	18
Illinois River near Selma	1957-67	665	47.65	3335	1690	160,000 <u>2/</u>	61
Chetco River	1970-76	271	121.97	2434	1763	85,400 <u>2/</u>	45
Grayback Creek	1947-51	24.1	34.13	60.6	43.9	2,080	5.0

1/ Collected by the U.S. Geological Survey.

2/ Estimated 1964 Flood from River Stage.



## APPENDIX B

### TITLE 8200 - LAND USE PLANNING

#### 8200 - POLICY

Streamside Management Units. A Streamside Management Unit (SMU) is part of the water influence zone and will be managed to maintain or improve water quality for the benefit of all water uses (FSM 2542, 2603), to insure that applicable water quality standards will be met, and to comply with the intent of the National Environmental Policy Act.

As part of the multiple use plan, streams of the Siskiyou National Forest have been classified and designated on a map as SMU's. Special management practices will be prescribed on a case-by-case basis to meet goals established for each class of stream, bearing in mind that the cumulative downstream effects from a number of individual streams must also be considered when planning the overall extent and timing of management activities.

The delineation of SMU's will help in designating measures to minimize water temperature increases, reduce turbidity and channel erosion, avoid the accumulation of woody debris, and lessen other impacts on water quality resulting from land management activities.

Where esthetic or recreation values exist or are potentially important, the boundaries of Visual Management System foreground and SMU's may overlap. If management constraints are in conflict, the most restrictive will apply.

The SMU concept recognizes that all streams are important, but that some streams because of their present or foreseeable use should be provided a higher measure of protection than normal watershed management practice would dictate. This is particularly true on the Siskiyou, where in many watersheds, the annual value of sport and commercial fisheries exceeds the annual allowable cut of timber. The net annual value of the fishery resource of the Siskiyou exceeds seven million dollars annually, and in total is derived from both large and small streams. Accordingly, all streams on the Siskiyou deserve a high level of protection.

The SMU concept does not imply arbitrary abstention from all activities near streams but stresses the need for applying special care in management. As a practical matter, however, if SMU management goals are to be met, activity may have to be severely restricted along some streams where the potential for unacceptable impact is high. On the Siskiyou National Forest SMU can be managed with two options: (1) no cut buffers on Class 1 and 2 streams, or (2) partial cut of coniferous trees leaving hardwood to protect streams. Most streams can be managed with the partial cut option.



In order to remove coniferous trees from SMU and assure that streams will be protected by remaining hardwoods, three C clauses must be used. The C clauses are C2.3#, C6.32, and C6.51. C clause C2.3# allows the use of C6.32, a reserve tree clause, in which values are placed on leave trees. After the value is placed on reserve trees, C6.51 calls for directional falling to protect the reserve trees.

Insuring a desirable level of protection for streams involves more than just the application of the SMU concept, since it is merely one part of properly coordinated land management. For example, ephemeral streams are not delineated in the SMU concept but satisfactory land management practices must still be applied along these streams as well as throughout the watershed.

### Definitions

#### 1. Streamside Management Unit

The stream and an adjacent area of varying width where practices that might affect water quality, fish, and other aquatic resources are modified, as necessary, to meet SMU goals for each class of stream.

The width of this area will vary with the management goals for each class of stream, characteristics of the stream and surrounding terrain, and type and extent of the planned activity.

#### 2. Stream. A watercourse or section of a watercourse--

That has perennial flow, or

That has intermittent flow.

#### 3. Perennial Streams

Normally flow yearlong, except during periods of extreme drought.

Have well-defined channels and show signs of washing and scouring.

#### 4. Intermittent Streams

Carry water most of the year, but cease to flow during the dry season because evaporation and percolation into their bed and banks exceeds the available streamflow.

Have well-defined channels. Channels showing active scouring or washing are included in this category even though they may flow only during or immediately after periods of precipitation or the melting of snow.



Normally lack litter, except during the fall of the year, indicating stream-flow sufficient to move material during runoff.

Intermittent streams do not include ephemeral streams.

#### 5. Ephemeral Streams

Carry only surface runoff and hence flow only during and immediately after periods of precipitation or the melting of snow.

Form in slight depressions in the natural contour of the ground surface but do not normally develop sufficient flow to wash or scour their channels.

Can usually be identified by the presence of needles or other litter in the depressions.

Recommended Practices. The best land management practices for the individual situation shall be used on all streams on a case by case basis. Examples of desirable practices that will be specified to achieve management goals follow. Additional references are: FSM 2203, 2453.65, 2482.2, 2522.11, and FSH 7709.11, Guides D-4 and D-5, the Environmental Protection Agency "Industrial Waste Guide on Logging Practices" and Oregon State Game Commission "Guidelines for Stream Protection in Logging Operations."

#### Class I. The following practices apply:

Timber shall not be felled across the stream, and trees shall be lined, if necessary, to fall away (C6.51). Logs shall not be skidded across the stream and if necessary to cross should be flown clear of the streamside area. SMU's of one to three chains in width will be left on each side of streams. Leave high stumps adjacent to SMU's to prevent movement of woody debris into leave strips and streams. Vegetation which protects streambanks from erosion shall not be disturbed. The amount of shading vegetation required on perennial streams can be estimated using temperature prediction methods. Skyline yarding systems with lateral yarding capability, or helicopters, will be required for timber harvest in SMU's. Logging equipment shall be kept out of streams.

Roads shall be located, constructed, and maintained so that sediment and woody debris will not enter or be deposited in the stream. Utilize bridges or open bottom culverts at stream crossings. Keep equipment out of stream channels except for installation of crossing structures. To insure that effects are minor, no construction activities (bridges, culverts, etc.) will be allowed in the stream between December 1 and March 31, and special installations (e.g., sediment traps, settling ponds, coffer dams, riprap, etc.) should be utilized to keep sediment from reaching streams.



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Man-caused woody debris must not be allowed to enter the stream channel. Removal of existing stable, natural woody debris shall be done only in cases where fish migration is blocked, water quality impaired, excessive erosion is occurring as a result of the debris, or access for recreation purposes is hampered (consult with Forest Fishery Biologist and Watershed Staff). Existing natural woody debris will not be removed in wilderness.

Livestock grazing will be managed under special management prescriptions which fully meet Class I objectives. Allowable use by livestock of streamside vegetation will be limited to the amount that can be utilized while maintaining bank stabilization, water quality, shade, and cover for fish.

### Class II. The following practices apply:

Timber shall not be felled across the stream and trees shall be lined, if necessary, to fall away (C6.51). All logs yarded across the stream shall be flown clear of the stream or cross on temporary bridges. SMU's of one to three chains in width will be left on each side of streams. Leave high stumps adjacent to SMU's to prevent movement of woody debris into leave strips and streams. Vegetation which protects streambanks shall be retained. The amount of shading vegetation required on perennial streams can be estimated by using temperature prediction methods. Skyline systems with lateral yarding capability, or helicopters, will be required for timber harvest in SMU's. Logging equipment shall be kept out of streams.

Roads shall be located, constructed, and maintained so that sediment and woody debris will not enter the stream. Crossing structures may be permanent or temporary. Use of equipment in streams shall be allowed only for installation of crossing structures.

A small amount of man-caused woody debris may reach the stream despite the above precautions. It should be removed by hand or by some means that will not disturb the stream channel and streamside vegetation. Removal of existing stable, natural woody debris shall be done only in cases where fish migration is blocked, water quality is being impaired, erosion is occurring or will occur as a result of the debris, or access for recreation purposes is hampered (consult Forest Fishery Biologist and Watershed Staff). Existing natural woody debris will not be removed in wilderness.

Livestock use will be managed under noncontinuous grazing systems (FSM 2222.1) with prescriptions which fully meet Class II objectives. Short term effects of grazing on water quality and fish cover may occur on portions of the stream during a grazing season so long as State and Federal water quality standards are not



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violated and fish populations are not adversely affected. Any short-term effects should be compensated for during the following grazing season in the grazing system selected.

### Class III.

Management practices in this class will be concerned primarily with preventing soil movement, including slumps, earth slides, etc., maintaining satisfactory downstream water temperatures, and keeping debris from moving downstream into higher class streams. Since these are generally perennial streams, care must be taken at all seasons to protect downstream values. The following practices apply:

Timber shall not be felled or skidded across the stream except in rare circumstances. SMU's of one to three chains in width will be left on each side of streams. Vegetation which protects streambanks shall be retained. The amount of shading vegetation required on perennial streams can be estimated by using temperature prediction methods. Skyline systems with lateral yarding capability, or helicopters, will be required for timber harvest in SMU's. Equipment shall not operate in the channel proper.

Roads shall be located, constructed, and maintained so that the streambank and channel are left undisturbed.

Man-caused woody debris that gets into the stream channel shall be removed by hand and/or cable yarding equipment.

Livestock shall be managed in accordance with Class III objectives. Specific criteria covering soil disturbance, shade removal, esthetics, and other values shall be developed for each allotment.

### Class IV.

Management practices in this class will be concerned primarily with preventing soil movement, including slumps, earth slides, etc., and debris from moving downstream into higher class streams. Downstream effects are nil during the dry period but care must be taken to prevent later movement during periods of high precipitation and runoff. The following practices apply:

Felling, skidding, and road construction across streams shall be avoided. When it cannot be reasonably avoided, it shall be conducted at the time of minimum flow and at locations where streambank and channel disturbances are minimized. In some cases buffer strips may be required on Class IV streams to protect the quality of downstream waters.



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Roads shall be located, constructed, and maintained so that the stream channel is left essentially undisturbed.

Man-caused woody debris that gets into the stream channel shall be carefully removed by hand and/or cable yarding equipment.

Grazing will be conducted under principles of livestock management which will protect soil, vegetation, and water quality.

Management Application. The major challenge in proper application of the SMU concept will be on-the-site evaluation of the sensitivity of the specific area in terms of possible damage to water quality and the aquatic resources. This sensitivity will determine the kinds and limits of activity that will meet management goals established for each class of stream. Local guidelines and procedures need to be developed to provide a means of evaluating management alternatives. After acceptable alternatives are identified, the final job will be their proper application.



## TITLE 2100 - MULTIPLE USE MANAGEMENT

Stream Class. The present and foreseeable uses made of the water, and the potential effects of on-site changes on downstream uses, are the criteria for defining four stream classes. The importance of use will be relative to the general area. Consequently, size is not necessarily a criterion for classification. Whole streams or parts of streams can be classified. One stream may be sectionalized into several classes.

Class I. Perennial or intermittent streams or segments thereof that have one or more of the following characteristics:

Direct source of water for domestic use (cities, recreation sites, etc.).

Used by large numbers of fish for spawning, rearing or migration.

Flow enough water to have a major influence on water quality of a Class I stream. -\*

Class II: Perennial or intermittent streams or segments thereof that have one or both of the following characteristics:

Used by moderate though significant numbers of fish for spawning, rearing or migration.

Flow enough water to have only a moderate and not clearly identifiable influence on downstream quality of a Class I stream, or have a major influence on a Class II stream.

Class III: All other perennial streams or segments thereof not meeting higher class criteria.

Class IV: All other intermittent streams or segments thereof not meeting higher class criteria.



## APPENDIX C

### TITLE 8200 - LAND USE PLANNING

#### 8200 - POLICY

Soil Management Direction. Land management objectives, with special emphasis placed on the protection of soil values on the Siskiyou National Forest are as follows.

To manage the forest land outside of developed recreation sites and dedicated areas with timber as the key use and sustained high level production of quality timber as the primary goal. However, optimum consideration of all other resource values will be recognized consistent with the primary goal.

To manage all other resources under a Multiple Use Plan consistent with the preceding objectives.

Management Situation. The Principal Forest Resource Zone is characterized by intense competition for all occupancy-type of uses, particularly in the valley bottoms. Typical occupancy uses include highways, administrative sites, service and recreation areas, rights-of-way for power lines, pipe lines, power and irrigation projects, and water storage projects. Demands for timber are also extremely heavy. Big game uses the same areas as both summer and winter range.

The Principal Forest Resource Zone contains some of the highest quality and heaviest yielding timber stands in the United States, constituting a significant percentage of the commercial timber reserve of the nation. The National Forest timber in this zone is extremely important to the timber industry of Oregon.

The major habitat for native and anadromous fish is located in the Principal Forest Resource Zone. It is also an important habitat for small game and upland birds, and for migratory waterfowl. It supports more man-days of hunting and fishing use than any other zone.

The Principal Forest Resource Zone poses many difficult multiple use decisions because many of the resource uses attain their highest economic value here, and competition is correspondingly intense.

#### Management Direction Applying to all Zones and Units - Soil and Water Values.

The following three paragraphs are overriding in all resource management activities. They are derived from the Multiple Use-Sustained Yield Act which directs the management of National Forests without impairment of the productivity of the



## TITLE 8200 - LAND USE PLANNING

land. Application of all objectives for the individual Resource Management Zones, Landscape Management Units, and management units must conform with these considerations.

Soil is a basic element in National Forest management. Management of all resources will be planned to keep soil in place; to maintain and/or improve its ability to absorb and store rainfall; and to produce plant growth. Practices that improve present soil conditions will be given preference.

Land and resource uses necessary to support an economic activity often cause soil dislocation and have adverse effects on watershed values. Such dislocations will be held to a minimum with preventive or corrective measures being specified and applied. Soil rehabilitation measures will be taken promptly where needed. In potential soil problem areas, the effect of projected uses will be evaluated by soil technicians. This information will be used by the line officers in applied management.

Water is also a basic resource because of its inseparable relationship to soil values and the productivity of land. It will be given primary consideration by managers to provide optimum yield of usable water in stable streamflow or subsurface supply. This will be done by maintaining the hydrologic balance between soil, water, and plants to obtain the best possible performance of the watershed. The quality of water will be restored, maintained, or improved by reducing sediment content through preserving stability of soil on watershed slopes and along stream channels. The purity, temperature, color, and taste of water will be maintained or improved to the extent that these qualities can be controlled on the land. Water yields and seasonal distribution of flow will be maintained or improved to the extent practicable.

The soils overlays of the District Multiple Use maps stratify each District into four soil management groups. These groups are combinations of the various classifications defined in the Siskiyou National Forest Cutbank Stability Reconnaissance Surveys. These surveys are broad and somewhat general by nature, and should not be used as a final answer. Specific areas should be examined on the ground for correlation with the survey and final decisions based on facts. Restrictions in management for a given soils group will also apply to all other soils groups that are more critical. Management directions for the various broad Soil Management Groups follow. Advance approval of the Forest Supervisor will be required for anything other than a minor deviation from these directions.



# TITLE 8200 - LAND USE PLANNING

<u>Soil Manage- ment Group</u>	<u>Mapping Color</u>	<u>Management Direction</u>
I A-C	Green	1. Manage in accord with Regional and Forest coordinating requirements.
II A-C		2. No tractor slash piling during wet weather (Oct. 31 to May 1). Soil moisture and density criteria to be used in determining when tractor piling will be shut down.
III A-C		
II D	Yellow	1. Road construction on slopes over 65 percent will require end haul of waste material. Compaction standards should be required in all classes where needed for stability.
III D		2. All slides will be end hauled and disposed of in designated waste areas.
		3. If recommended by the District Ranger and Soil Scientist, tractor logging will be permitted in partial cuts only on slopes up to approximately 30 percent. In the case of conflicting recommendations, the Forest Supervisor will make the decision.
		4. Skyline logging will be required on II and III D.
II E	Orange	1. Road construction on slopes over 65 percent will require end haul of waste material out of the soil group to a more stable area.
IV B&C		2. Intensive erosion control measures will be required in all classes.
IV D&E		3. In Class IV grade will be rolled and alignment modified to reduce cuts and fills.



# TITLE 8200 - LAND USE PLANNING

## Soil Manage- ment Group

## Mapping Color

## Management Direction

V B&C  
V D&E

Red

4. No tractor logging will be permitted. High lead logging may be permitted on small portions of a unit only if it is obvious that the logs are being yarded into a less critical soil management group.
5. A logging system such as skyline, slackline, or modification thereof, designed to keep the leading end of the yarded log continuously off the ground, or fly the entire log free of the ground, will be required. Where practicable, equipment roads will be appraised for machine assistance in installation of anchor points.
1. Generally no road construction will be permitted except that short stretches may be constructed with Forest Supervisor approval.
2. As a fundamental principle, surface logging contact in harvest cuts will not be planned. This excludes conventional high lead and tractor logging. Skyline, slackline, or modified high lead "flyer" logging systems (or modifications thereof) designed to fly the yarded logs free of the ground will be planned where it is possible to land the logs in a less critical soil group.

Where roads pass through red soil groups, mortality salvage, intermediate and overwood removal cuts will be planned, utilizing cable systems operating from the existing road surface that will, if possible, fly the yarded log to protect soil and silvicultural values. Where limitations of topography prevent flying the yarded



## TITLE 8200 - LAND USE PLANNING

Soil Manage-  
ment Group

Mapping  
Color

Management Direction

log, the logging system employed will be required to continuously keep the leading end of the yarded log free of the ground.

3. The soil sensitivity for all proposed roads and logging planned within this soil management group will be evaluated by the Forest Soil Scientist and his recommendations made available to the District Ranger and Forest Staff. In the event there is disagreement between any of the above on the most appropriate course of action, the Forest Supervisor will make the decision.

Management Directions that apply to all Soil Management Groups are as follows:

1. No tractor logging will be permitted in clear cut units without the specific recommendations of the District Ranger and the Soil Scientist. In the case of conflicting recommendations, the Forest Supervisor will make the decision.
2. Tractor logging will be shut down during wet periods as determined by soil moisture and density factors from proctor curves. This includes rubber-tired skidders as well as tractors.
3. Landings, especially where excavation is required, will be held to the minimum practicable size.
4. Excavated material on slopes over 65 percent which results from landing construction will be end hauled to designated waste areas.
5. Wet weather road construction will not be permitted when the soil moisture condition exceeds that which results in compaction to 90 percent of the maximum density for that particular soil. This will be determined from proctor curves.
6. Road grades will be rolled and alignment sacrificed to avoid, insofar as practicable, all unstable soil areas.
7. Log culverts will not be used. Where drainage facilities are needed in other than permanent roads, temporary log bridges or metal culverts will be installed and left in place after use.



## APPENDIX D

### SISKIYOU NATIONAL FOREST DEAD TREE (SNAG) GUIDELINES

Situation: Extensive areas of forested lands are losing a significant part of their value as wildlife habitat because dead and defective trees are being reduced or eliminated by management activities. These dead and defective trees are used by a great variety of wildlife species for nesting, denning, perching, roosting, feeding and cover. At least 41 species of birds and 7 species of mammals found on the Siskiyou National Forest are totally or heavily dependent on dead and defective trees; another 12 bird species and 8 mammal species are somewhat dependent on dead or defective trees (Table 1).

#### Dead Tree (Snag) Management

##### A. Minimum Goal

As a minimum, provide habitat to maintain self-sustaining populations of snag-dependent wildlife species on the Siskiyou National Forest.

##### B. Minimum Objective

On a continuing basis, on all commercial forest acres scheduled for harvest, provide dead, standing, and down trees as needed to meet the above goals. It is recognized that many areas will take additional time to produce the desired dead trees.

##### C. Methods of Accomplishing Objective

The minimum needs for dead trees (snags), and defective green trees (culls), vary among habitats and species. These guidelines set minimum goals for numbers and sizes of both snags and green trees which will be converted to snags either manually or naturally at a later date. These minimum goals will be used to provide at least a minimum continuous supply of dead trees suitable for wildlife.

It is not expected that an absolute number of wildlife trees will be left on each and every acre of land in the Siskiyou National Forest. However, it is expected that all dead trees (snags) will be left standing whenever possible and that these wildlife trees will be as evenly distributed as possible.

The State of Oregon safety codes require that dead trees (snags) which would be situated in close proximity to workmen and equipment during logging operations must be felled prior to logging (see Appendix B). Also, many dead trees are felled in harvest units because they may present special fire hazards when prescribed burns are conducted, or during lightning storms or wildfires. As a result of these safety



and fire considerations, most of the dead trees within the boundaries of harvest units will be eliminated. In addition, dead trees which are left standing after timber harvesting is completed will not stand through an entire rotation (100 years). Because of these realities, green cull trees and/or merchantable green trees will need to be set aside each time a unit is harvested.

Some of these green trees may have to be killed (girdled, etc.) soon after the unit is harvested. The remaining green trees may have to be killed at intervals during the rotation (if they do not die naturally); these set-aside green trees should be of different ages and sizes to insure a continual supply of dead trees for wildlife throughout the rotation. When a green tree is selected as a wildlife tree (snag), a tree that will become a snag 50 years hence will of course be smaller in diameter than will a tree that must be turned into a snag within a few years. The useful life of individual snags could be significantly extended by girdling the trees at half their height instead of at ground level. Plans (schedules) for reentry of harvest units at required intervals to girdle the selected trees may be best accomplished through the tri-system.

Implementation of these guidelines will provide habitat for 60 percent of the maximum potential population of those cavity nesters utilizing riparian and meadow zones; in the midslope zone 30 percent of the potential population will be accommodated.<sup>1</sup>

The pines, true firs, and Douglas-fir are the most valuable to wildlife, but many other tree species are also important, including cedars, spruces, hemlocks, oaks, maples and madrone.

#### 1. Height and DBH of Leave Trees

Although snags of all heights and diameters are valuable, (including "whips") as many as possible of the designated trees should be 50 feet (15 m) or over in height and at least 20 inches (51 cm) DBH.

Investigations of the needs of cavity nesters have revealed that if the habitat requirements (for snags) of the various woodpecker species are met, then the habitat requirements of other cavity nesters (non-excavators) will be met as well. Also, the relatively large snags required by certain wildlife species (such as the pileated woodpecker) will serve the needs of those wildlife species which will use relatively small snags.

Habitat requirements of woodpecker species inhabiting the Siskiyou are varied (Fig. 1). For roost and nest cavities, the pileated woodpecker requires a dead or defective tree with

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1. From: Thomas, J. W. 1975. Snag Requirements. In Preliminary Information on Wildlife Habitat Relationships in N. E. Oregon.



a minimum height of 40 feet (12.2 m) and DBH of 20 inches (51 cm). Also, cavities abandoned by the pileated woodpecker are the only source of nesting cavities (other than naturally occurring cavities) for such large species as the wood duck and screech owl.

## 2. Minimum Numbers of Leave Trees

- a. Dead trees (snags) should be left standing except for those which are definite safety or fire hazards.
- b. Green trees to be left (conifers).

	<u>Riparian and Meadow Zones</u>		<u>Midslope Zone</u>	
	Per Acre (Per ha)		Per Acre (Per ha)	
True Fir Type <sup>1</sup>	6	(15)	3	(7.5)
Douglas-fir Type <sup>2</sup>	4	(10)	2	(5)

1. Snag life about 30-35 years.
2. Includes all softwood forest types other than true fir; snag life about 50 years.

The intent of these guidelines for green trees is to provide, for the duration of a 100 year rotation:

(a) 2 snags (from green trees) per acre (5 per ha) in riparian and meadow zones, and (b) 1 snag (from green trees) per acre (2.5 per ha) in the midslope zone. (See definitions section (E) for explanation of terms used in this table.)

c. Hardwood trees (green or dead) are used by wildlife for a variety of purposes. These trees should be marked as leave trees whenever possible. However, hardwood leave trees are not substitutable for softwood leave trees (as listed in Section b, above).

## 3. Minimum Number of Down-Dead Trees

At least 2 down-dead cull logs (40 ft.<sup>3</sup> minimum volume) should be left per acre (5 per ha). The usefulness of down logs to wildlife is impaired by charring; whenever possible, down logs should be concentrated in areas which will not be control burned, such as on the perimeter of clearcuts and in leave strips.



#### 4. Marking of Leave Trees

In situations where leave trees must be marked if they are to be retained, orange paint or an orange colored paper (durable) or vinyl sign approx. 5" x 8" (12.7 cm x 20.3 cm) will be used (see Fig. 2). In salvage sales leave trees should be permanently marked to avoid problems during future entries. To avoid possible vandalism, signs should not be readily visible from roads and trails.

#### 5. Timber Sale Contracts

Each timber sale contract should specify that certain dead and/or live trees within the sale boundaries will be reserved from cutting. Applicable C-clauses are: C2.3 - Reserve Trees, C2.301 - Additional Wildlife Reserve Trees (needs approval of Regional Forester), and C6.32 - Protection of Reserve Trees.

#### D. Coordination Requirements

Effective implementation of these guidelines on each timber sale will require cooperation and coordination between the following management interests: wildlife biologist, EAR coordinator, safety, fire management, silviculture, logging systems, presale and timber sale administration.

The Forest wildlife biologist should be consulted as needed.

Timber Sale Environmental Analysis reports (EAR's) should be the focal point for coordinating the snag guidelines among those District personnel in charge of presale, silviculture, logging systems, timber sale administration and fire management. In relation to the snag guidelines, each EAR should answer two questions: (1) To what extent will the guidelines be complied with, and (2) How will the guidelines be applied (marking of leave trees, location of leave trees, etc.).

Regulations concerned with the safety of logging operations are described in the "Oregon Safety Code for Places of Employment, Chapter 16; Logging" (see especially Sections 16-1-9 through 16-1-14), and in the workman's compensation board memo by J. E. Wiles (August 20, 1974) to Supervisors and SCO's (Appendix B). Snags and other trees representing a recognized safety hazard on or adjacent to Forest roads, logging operations, recreation areas, and structural improvements will require special consideration.

Fire management rules are more restrictive in some situations than others. Some of the more hazardous situations include dead trees left standing near roads, Forest boundaries, recreation areas (especially summer homes), power lines, and on high ridges. Designated fuel breaks and fire breaks and other strategic locations



identified in pre-attack fire planning will receive special consideration.

E. Definitions

1. Dead Tree: A non-living tree with a majority of the exterior surface visibly sound or not in rotted condition. The interior of these trees may or may not be rotted, a condition which is difficult to assess readily. Those with rotted interiors are considered "soft snags", those with solid interiors "hard snags". Hard snags, over time, may become soft snags. Dead trees with less than one-half the exterior surface visibly sound are useful to cavity-dependent species; however, their usefulness is short-lived.
2. Forest Types:
  - a. True Fir Type - That area of the Siskiyou on which true firs predominate. The useful standing life of a true fir snag is about 30-35 years.
  - b. Douglas-fir Type - That area of the Siskiyou on which softwood trees other than true fir predominate (includes Douglas-fir, pines, cedars). The useful standing life of a snag of the "type" is about 50 years.
3. Habitat Zones:
  - a. Riparian Zone - That area within 5 chains (100m) of water.
  - b. Meadow Zone - That area within 5 chains (100m) of a natural opening 1 acre (.4 ha) or larger in size. The predominant vegetative cover in these natural openings is neither deciduous nor coniferous trees or shrubs. A clearcut is not considered to be a natural opening.
  - c. Midslope Zone - That area not within riparian or meadow zones.
4. Self-sustaining Population: A species population of sufficient size to be capable of natural self-perpetuation.
5. Water: Perennial streams of 1 cfs or more plus all ponds, lakes and wetland/bog areas.
6. Green Tree: A live coniferous tree which may or may not contain merchantable volume. Unmerchantable green trees should be selected as leave trees whenever possible, but merchantable green trees should be selected as needed to meet the intent of the guidelines.



## F. Dead Tree Distribution

It is not intended that the prescribed number of dead and/or green leave trees per acre be applied to each acre; however, neither is it the intent that dead trees and/or green trees in large concentrations be averaged with large areas void of dead trees and/or green trees to meet the minimum prescribed number per acre. In many cases, more snags will increase populations of these species. Dead trees which are well distributed will receive optimum use by wildlife. Some species have relatively large territories, as the screech owl (30 acres). Therefore, if 640 snags on one section of land are concentrated on 30 acres, there will still be only 1 nesting pair of screech owls present.



Table 1

Wildlife species on the Siskiyou National Forest which depend on dead and defective trees.

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Totally or heavily dependent

BIRDS

Wood Duck  
\*\*Hooded merganser  
\*Rough-legged hawk  
\*Ferruginous hawk  
Red-tailed hawk  
\*Swainson's hawk  
Golden eagle  
Bald eagle  
American osprey  
\*Peregrine falcon (duck hawk)  
\*Merlin (pigeon hawk)  
Kestrel (sparrow hawk)  
Screech owl  
Spotted owl  
Saw-whet owl  
\*Flammulated owl  
Pygmy owl  
Vaux's swift  
Common flicker  
Pileated woodpecker  
Acorn woodpecker  
\*Lewis' woodpecker  
\*\*White-headed woodpecker  
Yellow-bellied sapsucker  
\*\*Williamson's sapsucker  
Hairy woodpecker  
Downy woodpecker  
\*Black-backed 3-toed woodpecker  
\*Northern 3-toed woodpecker  
\*Ash-throated flycatcher  
Tree swallow  
\*Purple martin  
Black-capped chickadee  
Mountain chickadee  
Chestnut-backed chickadee  
Plain titmouse  
White-breasted nuthatch  
Red-breasted nuthatch  
\*Pygmy nuthatch  
Western bluebird  
Mountain bluebird

MAMMALS

Pine Martin  
\*Fisher  
Raccoon  
Chickaree  
Western gray squirrel  
Northern flying squirrel



Partially dependent

BIRDS

Common merganser  
Band-tailed pigeon  
Barn owl  
Violet-green swallow  
Brown creeper  
House wren  
Winter wren  
Bewick's wren  
Townsend's solitaire (in stumps)  
Starling  
\*House finch  
\*English sparrow

MAMMALS

California bat  
Little brown bat  
Big brown bat  
Ringtail  
Western harvest mouse  
Deer mouse  
Red tree mouse  
Bushy-tailed woodrat  
Porcupine

- 
- \* = Possibly present - to be looked for.  
\*\* = Probably present, but uncommon or rare (has been sighted on the Siskiyou N.F. at least once).

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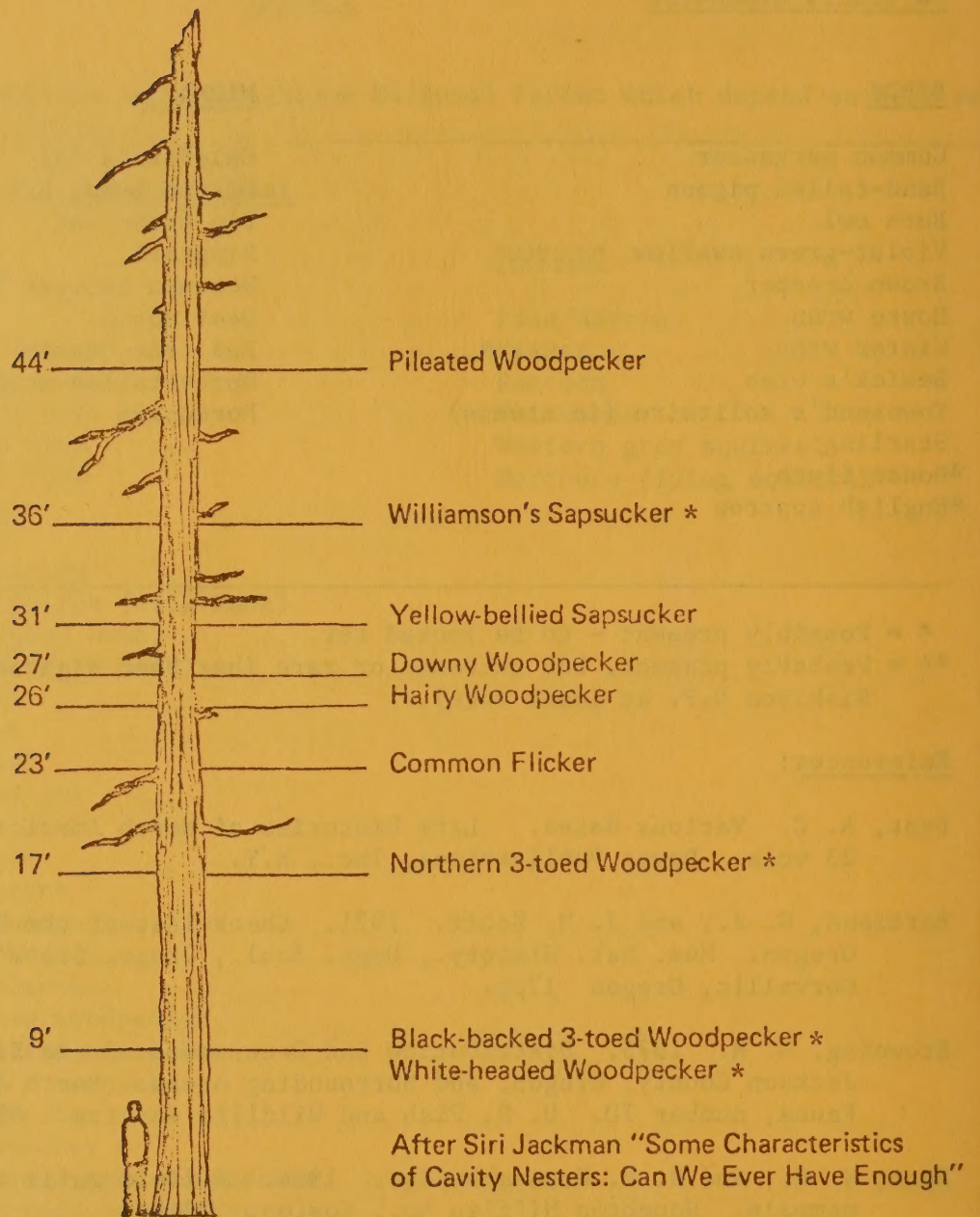


Figure 1. Average height of nest hole.

\* = Uncommon on Siskiyou National Forest.



# WILDLIFE TREE DO NOT DISTURB

MANY BIRDS AND OTHER ANIMALS USE  
TREES AND SNAGS FOR PERCHING, NESTING,  
DENNING, AND AS A FOOD SOURCE. AS  
A NECESSARY PART OF WILDLIFE HABITAT,  
THIS TREE IS RESERVED FROM CUTTING.  
DO NOT CUT OR DAMAGE IT. VIOLATORS  
WILL BE PROSECUTED ACCORDING TO  
THE PROVISIONS OF 18 U.S.C. SEC. 1853.



FIGURE 2. SIGN TO BE USED IN MARKING LEAVE TREES (BLACK LETTERS ON ORANGE BACKGROUND).

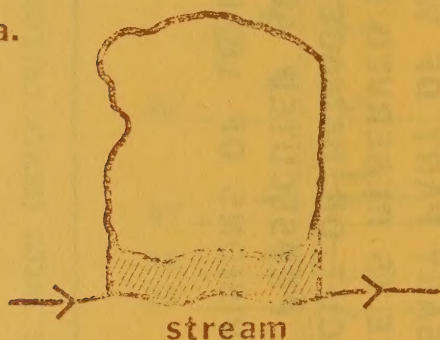


Examples of management techniques for specific situations.

Snag management techniques will vary with the method of timber harvest. Although all clearcuts, partial cuts, and salvage sales come within the scope of these guidelines, individual sales will have to be handled separately. The method used to bring a specific management unit into compliance will of necessity be tailored to fit the situation.

1. Clearcuts

a.



- a. The most important location for snags (and green trees) is on the bottom edge of a unit, especially along perennial watercourses. (Riparian habitat is very important to a number of wildlife species). Also, snags/green trees in this location are least affected by other management constraints, especially safety and fire management.

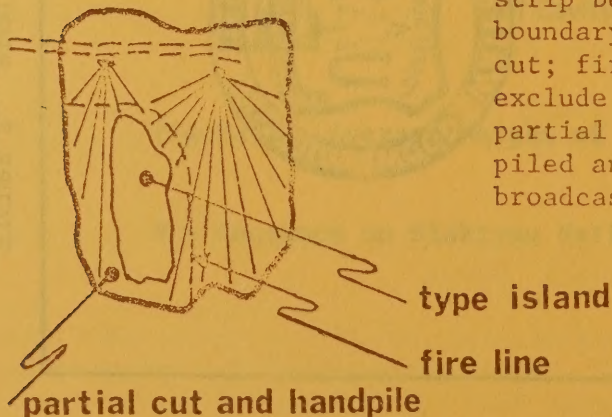
b.



LTA=leave tree area

- b. In some instances it may be possible to leave a group of snags and/or green trees on minor ridges or in small depressions at the lower end of a sale area, especially if two or more landings are used.

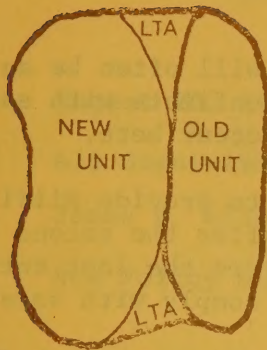
c.



- c. In some cases, a type island may be left within or on the edge of a unit. It may be possible to use the type island itself to fulfill the snag requirements for the entire unit. When the island is close to the unit boundary, the narrow strip between the island and the unit boundary may be designated as a partial-cut; fire lines could be constructed to exclude the island. Slash within the partial cut area (island) could be hand piled and burned rather than being broadcast burned.



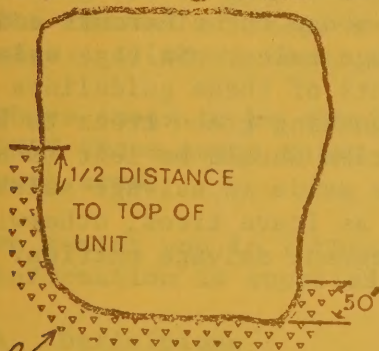
d.



**LTA= leave tree area**

e.

→prevailing wind→



**example of an area  
where a 200 foot  
snag-free zone may  
not be needed**

## 1. Clearcuts (Continued)

- d. (1) In instances where a new unit adjoins an old unit, it may be possible to leave a group of snags and/or green trees on the border between the units.

(2) In other cases it may be advantageous to create leave strips between adjacent clearcuts. The leave strip could be left untouched (other than for fire and safety considerations) or developed as a partial cut.

- e. The policy of cutting all dead trees (snags) 15 feet (4.6 m) or higher within 200 feet (61 m) of a sale boundary (timber sale contract clauses A4 and B2.31) is not absolute. Depending on the direction of the prevailing wind and the timing of the broadcast burn (spring instead of fall) snags in certain locations could be left fairly close to the fire line (green culls within the 200 foot - 61 m boundary would not be affected).

- f. On occasion there may be opportunities to leave single large green trees within clearcuts.

## 2. Partial Cuts

- It is especially important to leave snags and/or green trees in the valuable wildlife habitat along perennial watercourses. Conflicts with workman's safety are also less likely to occur here.
- The size of the cutting units and the intervening leave blocks could be manipulated to provide for snags and/or green trees.
- In some of the more defective stands it may be possible to select only culls (potential wildlife trees) as leave trees, which would negate the necessity of a subsequent entry(ies). As an extra benefit, cleanup costs will be reduced if a maximum number of culls are left standing.



## 2. Partial Cuts (Continued)

- d. The perimeter of the sale area will often be an important location for green trees, and conflicts with safety regulations are less likely to occur here.
- e. If green trees must be girdled to provide wildlife snags, this should not be done until after the second (or last) entry. Green trees girdled before the last entry might otherwise have to be felled to comply with safety regulations.

## 3. Salvage Sales

These sales should also meet the intent of the guidelines. Many of the techniques listed above for clearcuts and partial cuts could be adapted to salvage sales. Salvage sales could be planned so that the requirements of these guidelines are met without the necessity of designating green trees to be girdled; if at all possible, snag creation should be left to natural processes. Wildlife trees set aside in salvage sales should be physically marked (signed) as leave trees, otherwise they may be eliminated during subsequent salvage entries.



B  
STATE OF OREGON  
WORKMEN'S COMPENSATION BOARD  
SALEM 97310

DATE: August 20, 1974

INTER OFFICE MEMO

TO: All Supervisors and SCOs

FROM: James E. Wiles, Administrator

RE: New Policy on Citing Snags and Danger Trees

The following policy on the methods to handle danger trees and snags was compiled after several meetings with other governmental agencies, private employers and Accident Prevention Division personnel.

The removal of snags and danger trees shall be considered in two ways: 1) short term, and 2) long term.

Those snags to be considered under the short term program will be ONLY those snags which are within the boundaries of a sale unit, or work area.

To assist you in interpreting the short term policy, the following information is supplied:

A. Definitions

1. Danger trees and snags are defined in the danger tree hand-out sheet. In conjunction with the snag identification training program will be the SCO's opinion judgment taking into consideration employee exposure.
2. Snag: For the sake of brevity in this policy, the word "snag" shall mean danger tree and/or danger snag.
3. Near proximity shall be defined as within the distance of one-half of the height of the snag in cable logging and one-third of the distance of the height of the snag in tractor logging.

(NOTE: Larch or Tamarack, and Cedar snags shall have proximity limits equal to the length of the snag.)

B. Cable Logging: Clear cut, thinning, Western Oregon, Eastern Oregon

1. The SCO shall cite when evidence shows that a "snag" is standing in the logged over part of the unit, and if one statement from a witness verifies that any member of the rigging crew has been working in near proximity to the "snag" or if the SCO himself observes a violation.



New Policy on Citing Snags and Danger Trees

Page 2

2. When the SCO observes "snags" which are standing within the unit yet to be logged, he shall cite the employer and rate it as 0 probability.

C. Tractor, skidder, horse logging: Clear cut, thinning, Western Oregon, Eastern Oregon.

1. Same as Section B, parts 1 and 2 except near proximity may be reduced as defined.
2. Yarding skid roads shall not be nearer than thirty feet from "snags" regardless of height of "snag".

D. Log truck haul road within sale unit, landing area including guy lines.

1. "Snags" that could reach any of the areas above shall be felled before regular operations begin.

E. Cutters

1. Fallers and buckers away from the yarding operations are not subject to this policy but shall abide by the pertinent standards of the Code.

F. Environmental trees

1. Snags and/or trees designated for wildlife may be left providing they are not in conflict with this policy.

The LONG TERM POLICY is as follows:

Snags and danger trees on haul roads will be considered negotiable. By this it is meant that the supervisor, upon notification by the SCO of such danger trees in his area, will make the necessary contact with governmental agencies or private ownerships to have the hazards removed. Such danger trees can be removed by ranger sales, included in future timber sales, road re-construction or special salvage sales. TIP TO SUPERVISORS: If such an operation involves multiple ownerships, it might be advisable to use the services of the Consultative Section to co-ordinate the snag removal program.



## DANGER TREES

### Workmen's Compensation Board Accident Prevention Division

NOTE: In administering the State Safety Law it was felt it would be helpful in establishing a better understanding, if the particular Safety Codes pertaining to trees to be felled prior to the placement of machines or rigging up in logging operations were reproduced.

The responsibility for contacting the timber owner to make necessary arrangements rests with the logger and should be done far enough in advance to insure a safe operation.

#### TREES TO BE FELLED PRIOR TO THE PLACEMENT OF MACHINES OR RIGGING UP

1. All guyline anchors for yarding or loading equipment shall be stumps or other approved anchors. Logging Code, Rule 16-5-31.
2. Anchors for all yarding or loading machine tail holds shall be stumps or other approved anchors. Logging Code, Rules 16-1-9 and 16-5-6.
3. The area to be yarded through within the guyline circle shall be clear cut, and any trees outside the circle that could be pulled over on guylines shall be felled. Logging Code, Rule 16-1-9.
4. All trees which may interfere with proper placement and tightening of guylines shall be felled. Logging Code, Rules 16-1-9, 16-5-6, and 16-5-25.
5. All trees located within reach of guyline or landing area, adjacent to cat roads, which may be pulled or pushed over, shall be felled. Logging Code, 16-1-13, 16-9-1, and 16-1-9.
6. Ample space, free of standing trees, shall be provided for proper placement and operation of machines and equipment for landing and loading of logs in the landing area. Logging Code, Rules 16-9-1 and 16-1-9.
7. All dangerous trees and snags within reach of the guylines, landing machines and landing areas that have not been covered by above interpretations shall be felled. Logging Code, Rule 16-1-9, 16-1-11, and 16-1-1.
8. Trees that are considered dangerous:
  1. Dead or rotten
  2. Likely to be blown over.
  3. That may be pulled or pushed over.
  4. That have been brushed by felled trees leaving broken limbs (widow makers).



## DANGER TREES

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5. That the root system has been disturbed by moving equipment, rigging, felled timber or logs.
6. All dangerous trees located on steep ground that may fall and slide into the landing or work area.

When the ground is saturated with water, trees may be blown over with very little wind. When this condition exists, they are also very easily knocked down by rigging or machines; therefore, weather conditions must be considered.



## APPENDIX E

### Special Areas, Flora and Fauna

The Planning Unit contains a long list of areas having features which merit some degree of special interest. These features may be geologic, botanic, historic, or scientific in nature. Table X - E-1 lists areas within the Unit boundaries which may merit some degree of special interest. Several points regarding the list are appropriate. First, the list is not necessarily all-inclusive. 1/ Second, the values of the areas appear to vary widely - from little value to substantial value. Third, many of the most valuable areas are already managed specifically to preserve or enhance their special values. Fourth, management of other resources in the area be compatible with the protection of any significant values.

Table X - E-1. Special Areas

#	Area	Type <u>2/</u>	Description
1	Store Gulch	R	Proposed Research Natural Area; also botanical interests.
2	Oregon Mtn. Area	B	Large variety of floral species.
3	Eight Dollar Mtn. Area	B	Variety of floral species.
4	Bolen Peak Area	B	Many floral species of interest.
5	Wheeler Creek	R	Research Natural Area; northern limits redwoods.
6	Lemingsworth Gulch (Packsaddle Area)	R	Serpentine vegetative and soil types, large Darlingtonia bog. Potential RNA.
7	Peavine Ridge Area	B	Mixed stands of redwood and Douglas-fir, scattered pure stands of large old growth redwood.
8	Japanese Bomb Site	H	T.40S., R.12W., Sec. 22. Landing site of incendiary bomb dropped Sept. 9, 1942 by Japanese during World War II.
9	West Moore Guard Station Site	H	T.41S., R.12W., Sec. 10. Site of the first ranger station in the Brookings-Harbor area. Built June 1910 - removed 1934. Now used as undeveloped campsite.
10	Wheeler's Grave	H	T.41S., R.12W., Sec. 10. Grave site of James Wheeler, an early settler in the Winchuck area (died 1903, approximate age 60).



#	Area (cont'd)	Type 2/	Description
11	Redwood Park	B	T.40S., R.13W., Sec. 13. Approx. 50 acres of redwood timber stand North Chetco River with trail. Excellent opportunity for amateur naturalist; 19 species of wildflowers, 11 trees, 5 shrubs, 7 ferns have been identified.
12	Navy Monument	H	T.39S., R.11W., Sec. 33. Crash site of a Navy PBV-5A on January 31, 1945. Navy monument erected 1957 for the 8 men aboard. Steep 5-mile hike to see graves and remains of the aircraft.
13	Windy Valley	S	T.37S., R.12W., Sec. 31. Picturesque, isolated valley with trail access only.
14	Snow Camp Meadow	S/B	T.38S., R.12W., Sec. 25. Scenic area with meadow - hiking access only.
15	Hahnzicker's Grave	H	T.41S., R.11W., Sec. 9. Grave site of Al Hahnzicker, early miner and USFS summer crew employee (died 1937); trail access.
16	Kalmiopsis Wilderness	B/H	Many points of interest, including botanical, historical (mining activity) and scenic areas.
17	Pyramid Rock Area	B	Flycatcher Springs (Darlingtonia plants)
18	Red Flats Area	H&B	Many botanical features in serpentine soil types, mining interests, and old cabins.
19	Ludlum House	H	T.41S., R.12W., Sec. 3. Home of early settler in the Winchuck area.
20	Packer Cabin	H	Early cabin originally used by Forest Service packers and other personnel.
21	Althouse-Sucker Cr. Area	H	Area of extensive gold mining activity in mid-1800's to early 1900's.
22	Josephine-Canyon Cr. Area	H	Area of extensive gold mining activity in mid-1850's to early 1900's. First gold discovered in area.
23	Sebastapole	H	Gravesite above road at old Josephine settlement site.
24	East Fork of Althouse Cr.	H	Largest gold nugget in Southern Oregon found here. (Weighed 17 lbs.) Discovered by Mattie Collins in 1859-valued at \$350



#	Area	Type 2/	Description
25	Page Mt. (Cal-Dun Jct.)	R	A relic old growth timber stand. A healthy stand of Douglas-fir, Port-Orford that is fully stocked in the 5' to 10' d.b.h. range.
26	Black Butte-Sanger Peak Area	B	High elevation - subalpine type which includes a variety of rare plants such as Brewer's spruce and Saddler oak. The most scenic high elevation rugged peaks visible from Illinois Valley area.
27	Run Gulch Cabin	H	Bootlegger's cabin (well preserved)
28	Sourdough Area	H	Area of chrome mining activity in 1920-30's.
29	McGrew Trail	H	The original wagon road to Illinois Valley from coast.
30	Bain Station	H	Wagon stop on McGrew Trail.
31	Frantz Meadow	H/B	Meadow on Baldface Cr. that was cleared in 1920's? and is still a meadow.
32	Rough and Ready Lakes	B	Large variety of unusual plant species associated with serpentine bogs.
33	Josephine Cr. Area	B	Several communities of Darlingtonia plants
34	Chetco Pass	H	Area of extensive chrome mining in 1930's.
35	McCaleb's Ranch	H	Present site of a Boy Scout Summer Camp.
36	Page Creek	H	Original district headquarters. No buildings left. Two large maple trees on site. One acre meadow.
37	Page Creek	B/H	Very early plantation of black walnut on south side of Page Cr., T.41S., R.8W., Sec. 2. Also one of the earliest timber sales.
38	Tennessee Pass	B	T.39S., R. 9W., Sec. 12. 200 yds. down from Tenn. Pass toward Josephine Cr. and above the road. A pine tree with both ends growing in the ground.
39	E. Fork Illinois River	H	Mining ditch approx. 15 miles long from E. Fork Illinois River to old mining cuts below Waldo L.O. Ditch is just below road near Waldo L.O.



#	Area	Type 2/	Description
40	Black Butte Area	B	Largest known Brewer's spruce, T.18N., R.5E., Sec. 36, 100 ft. above Dunn Cr. 52" d.b.h.
41	Wimer Road	H	Stone Corral, old stage stop on Wimer Rd., T.40S., R.9W., Sec. 34. Partially restored by NYC in 1975.
42	Sourdough Area	H	Mining and supply crossing on N. Fork Smith River about 50-100 yards above Baldface Cr.; monument established.
43	Iron Gulch	H	Mr. Adam's grave; killed 1930 by snow slide.
44	West Fork Althouse	H	Old Chinese oven.
45	Illinois River	H	Old Foster place; burial site of miner named Young.
46	Three Trees	B	Large knobcone pine. At one time it was on big tree register. Recently, a new champ was crowned.
47	Long Ridge	B	Very large canyon live oak.

1/ See "Cultural Resource Overview of the Siskiyou National Forest" by Stephen Dow Beckham, 1978.

2/ B = botanical interest; H = historical or archeological interest; R = on list of possible sites for Research Natural Areas; S = scenic area.

Table X - E-2 lists plants tentatively identified as threatened by the Smithsonian Institution (1975) or endangered by the Fish and Wildlife Service (1976) and which may be present on the Planning Unit. Some rare species, such as Kalmiopsis leachiana, are not included on this list; however, they may appear on a list of plants which are considered endangered, threatened, or rare in the State of Oregon. This list is being compiled by the Oregon Rare and Endangered Plant Species Task Force.

Table X - E-2. Floral Species Tentatively Identified as Threatened or Endangered and which may be Present on the Planning Unit.

Scientific Name	Common Name
<u>Endangered Species: 1/</u>	
<u>Benoniella oregana</u>	Bensonia
<u>Dicentra formosa</u> var. <u>oregana</u>	Oregon Bleeding Heart
<u>Erigeron delicatus</u>	Del Norte Daisy
<u>Erigonum hirtellum</u>	Klamath Mt. Wild Buckwheat
<u>Gentiana bisetacea</u>	Waldo (Elegant) Gentian
<u>Lilium occidentale</u>	Western Lily



Scientific Name (cont'd)	Common Name
<u>Microseris nutans</u> ssp. <u>siskiyouensis</u>	Nodding Scorzonella
<u>Plagiobothrys lamprocarpus</u>	Shiny-Fruited Allocarya
<u>Sanicula tracyi</u>	Tracy's Sanicle
<u>Sedum moranii</u>	Glandular Stonecrop

Threatened Species: 2/

<u>Antennaria suffrutescens</u>	Siskiyou or Shrubby Everlasting
<u>Arabis aculeolata</u>	Waldo Rock Cress
<u>Arabis koehleri</u> var. <u>stipitata</u>	Koehler's Rock Cress
<u>Arabis oregana</u>	Oregon Rock Cress
<u>Arctostaphylos intricata</u> var. <u>oblongifolia</u>	Siskiyou Manzanita
<u>Arenaria paludicola</u>	Swamp Sandwort
<u>Aster brickellioides</u>	Brickellbush or Rayless Leafy Aster
<u>Castilleja brevilobata</u>	Short-leaved Indian Paintbrush
<u>Castilleja miniata</u> ssp. <u>elata</u>	Slender Indian Paintbrush
<u>Cypripedium californicum</u>	California Lady's Slipper
<u>Darlingtonia californica</u>	California Pitcher Plant
<u>Erigeron bloomeri</u> var. <u>nudatus</u>	Bloomer's Daisy
<u>Eryngium petiolatum</u>	Rush Leaved Eryngo
<u>Erythronium howellii</u>	Howell's Adder's Tongue or Fawn Lilly
<u>Erythronium oreganum</u>	Giant Adder's Tongue
<u>Haplopappus racemosus</u> ssp. <u>congestus</u>	Racemose Pyrrocoma
<u>Lewisia cotyledon</u>	Imperial Lewisia
<u>Lewisia oppositifolia</u>	Opposite-Leaved Lewisia
<u>Lilium volmeri</u>	Volmer's Lilly
<u>Lilium wigginsii</u>	Wiggen's Lily
<u>Limnanthes gracilis</u>	Slender Meadow Foam
<u>Microseris howellii</u>	Howell's Microseris
<u>Monardella purpurea</u>	Siskiyou Monardella
<u>Pedicularis howellii</u>	Howell's Lousewort
<u>Perideridia erythrorhiza</u>	Yampa
<u>Phacelia peckii</u>	Peck's Phacelia
<u>Pityopus californicus</u>	Pinefoot
<u>Plagiobothrys hirtus</u> ssp. <u>corallicarpa</u>	Rough Allocarya
<u>Schoenolirion bracteosum</u>	Large Flowered Rush Lilly
<u>Sedum laxum</u> ssp. <u>heckneri</u>	Lax Stonecrop
<u>Senecio hesperius</u>	Siskiyou Butterweed
<u>Sidalcea cusickii</u>	Cusick's Sidalcea
<u>Sidalcea malvaeflora</u> ssp. <u>elegans</u>	Mallow Sidalcea
<u>Sidalcea setosa</u>	
<u>Sophora leachiana</u>	Western Sophora
<u>Tauschia howellii</u>	Howell's Tauschia
<u>Thlaspi montanum</u> var. <u>siskiyouensis</u>	Pennycress or Wild Candytuft
<u>Vaccinium coccinium</u>	A Huckleberry
<u>Vancouveria chrysantha</u>	Yellow Vancouveria
<u>Viola lanceolata</u> ssp. <u>occidentalis</u>	Western Violet

- 1/ Fish and Wildlife Service. 1976. Proposed Endangered Status for some 1700 U.S. Vascular Plant Taxa. In: Federal Register, vol. 41, no. 117 - Wednesday, June 16.
- 2/ Smithsonian Institution. 1975. Report on Endangered and Threatened Plant Species of the United States presented to the Congress of the United States of America. G.P.O. Washington, D.C.



Table IX - E-3 lists amphibians, reptiles, and mammals that inhabit the Siskiyou National Forest. (\* = denoted species which utilize mature and/or old-growth forest; \*\* = occurs mostly in these habitats.)

Table IX - E-3. Wildlife.

Scientific Name	Common Name
AMPHIBIANS:	
<u>Ambystoma macrodactylum sigillatum</u>	*Long Toed Salamander (Southern ssp.)
<u>Ambystoma gracile gracile</u>	*Northwestern Salamander (Southern ssp.)
<u>Dicamptodon ensatus</u>	**Pacific Salamander
<u>Rhyacotriton olympicus variegatus</u>	**Olympic Salamander (Southern ssp.)
<u>Taricha granulosa</u>	*Northern Rough-Skinned Newt
<u>Plethodon dunni</u>	**Dunn's Salamander
<u>Plethodon elongatus</u>	**Del Norte Salamander
<u>Plethodon stormi</u>	*Siskiyou Mountain Salamander
<u>Ensatina eschscholtzi oregonensis</u>	**Oregon (Red) Salamander
<u>Ensatina eschscholtzi picta</u>	**Painted Salamander
<u>Batrachoseps attenuatus</u>	*California Slender Salamander
<u>Aneides ferreus</u>	*Clouded Salamander
<u>Ascaphus truei</u>	*Tailed Frog
<u>Bufo boreas boreas</u>	Western Toad (Borseal ssp.)
<u>Hyla regilla</u>	*Pacific Tree Frog
<u>Rana aurora aurora</u>	*Northern Red-Legged Frog
<u>Rana boylei</u>	**Foothill Yellow-Legged Frog
<u>Rana catesbeiana</u>	*Bullfrog

#### REPTILES:

<u>Sceloporus occidentalis occidentalis</u>	*Fence Lizard (Northern ssp.)
<u>Sceloporus graciosus graciosus</u>	*Sage Brush Lizard (Northern ssp.)
<u>Eumeces skiltonianus skiltonianus</u>	*Western Skink (Western ssp.)
<u>Gerrhonotus coeruleus principis</u>	**Northern Alligator Lizard (Northern ssp.)
<u>Gerrhonotus multicarinatus scincilauda</u>	*Southern Alligator Lizard (Oregon ssp.)
<u>Charina bottae bottae</u>	*Rubber Boa (Pacific ssp.)
<u>Diadophis punctatus occidentalis</u>	*Ringneck Snake (Northwestern ssp.)
<u>Coluber constrictor mormon</u>	Racer (Western Yellow-Bellied ssp.)
<u>Pituophis melanoleucus catenifer</u>	*Gopher Snake (Pacific ssp.)
<u>Lampropeltis getulus californiae</u>	*California (Common) Kingsnake
<u>Lampropeltis zonata</u>	Mountain (California) Kingsnake
<u>Thamnophis sirtalis fitchi</u>	*Common Garter Snake (Valley ssp.)
<u>Thamnophis elegans elegans</u>	*Western Terrestrial Garter Snake (Mountain ssp.)
<u>Thamnophis elegans terrestris</u>	*Western Terrestrial Garter Snake (Coast ssp.)
<u>Thamnophis couchi hydrophila</u>	*Western Aquatic Garter Snake (Oregon ssp.)
<u>Thamnophis ordinoides</u>	Northwestern Garter Snake
<u>Crotalus viridis oreganus</u>	*Western Rattlesnake (Northern Pacific ssp.)
<u>Chelonia marmorata marmorata</u>	Western Pond Turtle (Northwestern ssp.)



## MAMMALS:

<u>Sorex obscurus</u>	*Dusky Shrew
<u>Sorex pacificus</u>	*Pacific Shrew
<u>Sorex vagrans</u>	*Vagrant Shrew
<u>Sorex bendirei</u>	*Marsh Shrew
<u>Sorex trowbridgei</u>	*Trowbridge Shrew
<u>Scapanus townsendi</u>	Townsend Mole
<u>Scapanus orarius</u>	*Coast Mole
<u>Neurotrichus gibbsii</u>	*Shrew-Mole
<u>Myotis lucifugus</u>	*Little Brown Myotis (Bat)
<u>Myotis thysanodes</u>	*Fringed Myotis
<u>Myotis californicus</u>	*California Myotis
<u>Myotis volans</u>	*Hairy-Winged Myotis
<u>Myotis evotis</u>	*Long-Eared Myotis
<u>Myotis yumanensis</u>	Yuma Myotis
<u>Lasiorycteris noctivagans</u>	*Silver-Haired Bat
<u>Lasiurus cinereus</u>	*Hoary Bat
<u>Eptesicus fuscus</u>	*Big Brown Bat
<u>Plecotus townsendi</u>	*Western Big-Eared Bat
<u>Antrozous pallidus</u>	*Pallid Bat (May Occur)
<u>Lepus californicus</u>	Blacktail Hare or Jackrabbit
<u>Lepus americanus</u>	*Snowshoe Hare
<u>Sylvilagus bachmani</u>	Brush Rabbit
<u>Aplodontia rufa</u>	*Mountain Beaver
<u>Spermophilus beecheyi</u>	California (Beechey) Ground Squirrel
<u>Spermophilus lateralis</u>	*Sierra Nevada Golden-Mantled Ground Squirrel
<u>Eutamias townsendi</u>	*Townsend Chipmunk
<u>Sciurus griseus</u>	*Western Gray Squirrel
<u>Tamiasciurus douglasi</u>	*Douglas Squirrel or Chickaree
<u>Glaucomys sabrinus</u>	**Northern Flying Squirrel
<u>Thomomys bottae</u>	Botta Pocket Gopher
<u>Thomomys mazama</u>	Mazama Pocket Gopher
<u>Castor canadensis</u>	*Beaver
<u>Reithrodontomys megalotis</u>	Western Harvest Mouse
<u>Peromyscus truei</u>	Pinyon Mouse
<u>Peromyscus maniculatus</u>	*Deer Mouse
<u>Neotoma fuscipes</u>	*Dusky-Footed Woodrat (Packrat)
<u>Neotoma cinerea</u>	*Bushy-Tailed Woodrat (Packrat)
<u>Phenacomys albipes</u>	*White-Footed Vole or Pacific Phenacomys
<u>Phenacomys longicaudus</u>	**Red Tree Mouse
<u>Clethrionomys occidentalis</u>	*Western Red-Backed Mouse
<u>Microtus longicaudus</u>	Longtail Meadow Mouse
<u>Microtus oregoni</u>	*Oregon Meadow Mouse
<u>Microtus californicus</u>	California Meadow Mouse
<u>Microtus townsendi</u>	Townsend Meadow Mouse
<u>Ondatra zibethica</u>	Muskrat
<u>Mus musculus</u>	House Mouse



# Scientific Name (cont'd)

# Common Name

Zapus trinotatus

\*Pacific Jumping Mouse

Erethizon dorsatum

\*Porcupine

Vulpes fulva

\*Red Fox

(There have been recent reports of Red Fox in the Grants Pass area.)

Urocyon cinereoargenteus

\*Gray Fox

Canis latrans

\*Coyote

Ursus americanus

\*Black Bear

Procyon lotor

\*Raccoon

Bassariscus astutus

\*Ringtail "Cat"

Martes americana

\*Marten

Martes pennanti

\*Fisher

Mustela vison

\*Mink

Mustela frenata

\*Longtail Weasel

Mustela erminea

\*Ermine or Shorttail Weasel

Gulo luscus

\*Wolverine

(May occur on the Siskiyou; recent "sign" (1973) on the Gasquet District, Six Rivers, National Forest.)

Mephitis mephitis

Striped Skunk

Spilogale putorius

Spotted Skunk

Lutra canadensis

River Otter

Felis concolor

\*Cougar

Lynx rufus

\*Bobcat

Eumetopias jubatus

Steller (Northern) Sea Lion

Phoca vitulina

Harbor Seal

Cervus canadensis roosevelti

\*Roosevelt Elk

Odocoileus hemionus columbianus

\*Blacktail Deer



Table X - E-4 lists birds that inhabit the Siskiyou National Forest. The list is of necessity, indefinite. Birds are quite mobile and many species "pass through" only on migration. The bird list includes species which have not been sighted on the forest.

STATUS:

- R - Resident; found all year
- WR - Winter Visitor
- SR - Summer Resident; breeds on Siskiyou
- M - Migrant; seen only in transit, or irregular visitor
- ? - Status Undetermined
- \* - Hypothetical - has not been sighted on Forest, and in fact may not occur. If sighted, please inform Wildlife Biologist.

ABUNDANCE:

- C - Common; occurs frequently, often in substantial numbers
- U - Uncommon; occurs frequently, usually not in large numbers
- O - Occasional; occurs regularly
- R - Rare; occurs infrequently
- A - Accidental; unusual, not expected, probably a "wanderer"

Adapted from: Check-list of the Birds of Oregon, by Bertrand and Scott.  
1973. OSU Bookstores, Inc., Corvallis, Oregon.



Table X - E-4. Birds of the Siskiyou National Forest.

## BIRDS OF THE SISKIYOU NATIONAL FOREST

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Preferred Habitat</u>	<u>Abundance</u>
Common Loon	<i>Gavia immer</i>	M*	Ocean,Bays,Lakes	A
Horned Grebe	<i>Podiceps auritus</i>	M	Lakes,Rivers,Bays	O
Eared Grebe	<i>Podiceps nigricollis</i>	M	Lakes,Marshes,Rivers	O
Western Grebe	<i>Aechmophorus occidentalis</i>	M*	Bays,Lakes	R
Pied-billed Grebe	<i>Podilymbus podiceps</i>	M*	Rivers,Bays,Lakes	R
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	R	Ocean,Bays,Lakes	O
Great Blue Heron	<i>Ardea herodias</i>	R	Bays,Lakes,Streams	C
Green Heron	<i>Butorides virescens</i>	R*	Marshes,Lakes,Streams	U
Cattle Egret	<i>Bubulcus ibis</i>	R*	Fields,Pastures	A
Great Egret	<i>Casmerodius albus</i>	SR	Marshes,Lakes	U
Snowy Egret	<i>Egretta thula</i>	SR*	Marshes,Lakes	A
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	?*	Marshes,Swamps	R
Whistling Swan	<i>Olor columbianus</i>	M*	Lakes,Rivers	A
Canada Goose	<i>Branta canadensis</i>	M*	Lakes,Rivers,Fields	R
White-fronted Goose	<i>Anser albifrons</i>	M	Lakes,Bays	R
Snow Goose	<i>Chen c. caerulescens</i>	M*	Lakes,Marshes	R
Mallard	<i>Anas platyrhynchos</i>	R	Lakes,Rivers,Bays	C
Gadwall	<i>Anas strepera</i>	M*	Marshes,Lakes	R
Pintail	<i>Anas acuta</i>	M*	Lakes,Ponds	R
Green-winged Teal	<i>Anas crecca canolinensis</i>	M	Marshes,Bays	R
Blue-winged Teal	<i>Anas discors</i>	M*	Marshes,Bays	R
Cinnamon Teal	<i>Anas cyanoptera</i>	SR	Marshes,Bays	R
European Wigeon	<i>Anas penelope</i>	M*	Bays,Lakes,Fields	A
American Wigeon	<i>Anas americana</i>	M*	Marshes,Bays,Lakes	R
Northern Shoveler	<i>Anas clypeata</i>	M*	Marshes,Lakes	R
Wood Duck	<i>Aix sponsa</i>	R	Lakes,Streams	C
Redhead	<i>Aythya americana</i>	M*	Bays,Ponds,Lakes	A
Ring-necked Duck	<i>Aythya collaris</i>	M*	Lakes,Ponds	R
Canvasback	<i>Aythya valisineria</i>	M*	Marshes,Bays	R
Greater Scaup	<i>Aythya marila</i>	M*	Bays,Lakes	R
Lesser Scaup	<i>Aythya affinis</i>	M*	Bays,Lakes	R
Common Goldeneye	<i>Bucephala clangula</i>	M*	Lakes,Ponds	R
Barrow's Goldeneye	<i>Bucephala islandica</i>	M*	Lakes	R
Bufflehead	<i>Bucephala albeola</i>	M*	Lakes,Bays	R



<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Preferred Habitat</u>	<u>Abundance</u>
Harlequin Duck	<i>Histrionicus histrionicus</i>	?*	Streams,Bays,Ocean	R
Ruddy Duck	<i>Oxyura jamaicensis</i>	M*	Lakes,Bays	R
Hooded Merganser	<i>Lophodytes cucullatus</i>	M	Lakes	R
Common Merganser	<i>Mergus merganser</i>	R	Streams,Lakes	C
Red-breasted Merganser	<i>Mergus serrator</i>	M*	Coastal Bays,Rivers	R
Turkey Vulture	<i>Cathartes aura</i>	SR	Many habitats; some openings present	C
White-tailed Kite	<i>Elanus leucurus</i>	?*	Foothills, Marshes	A
Goshawk	<i>Accipiter gentilis</i>	R	Coniferous Forests	R
Sharp-shinned Hawk	<i>Accipiter striatus</i>	R	Forests,Woodlands	U
Cooper's Hawk	<i>Accipiter cooperii</i>	R	Woodlands,Canyons	U
Red-tailed Hawk	<i>Buteo jamaicensis</i>	R	Woodlands,Farm Lands	C
Swainson's Hawk	<i>Buteo swainsoni</i>	M*	Dry Plains,Foothills	A
Rough-legged Hawk	<i>Buteo lagopus</i>	M*	Open Plains,Marshes	A
Ferruginous Hawk	<i>Buteo regalis</i>	M*	Open Rangeland	A
Golden Eagle	<i>Aquila chrysaetos</i>	R	Mountains,Plains	U
Bald Eagle	<i>Haliaeetus leucocephalus</i>	R	Coast,Lakes,Rivers	U
Marsh Hawk	<i>Circus cyaneus</i>	M	Open Fields,Marshes	R
Osprey	<i>Pandion haliaetus</i>	SR	Lakes,Rivers,Coast	U
Peregrine Falcon	<i>Falco peregrinus</i>	M	Open Country,Cliff Areas	R
Pigeon Hawk or Merlin	<i>Falco columbarius</i>	R*	Woodlands	R
Sparrow Hawk or American Kestrel	<i>Falco sparverius</i>	R	Open Country,Parkland	U
Blue Grouse	<i>Dendragapus obscurus</i>	R	Wooded slopes,Forest	C
Ruffed Grouse	<i>Bonasa umbellus</i>	R	Mixed or Decid.Woods	U
California Quail	<i>Lophortyx californicus</i>	R	Woodlands,Brush	C
Mountain Quail	<i>Oreortyx pictus</i>	R	Woodlots,Forests	U
Ring-necked Pheasant	<i>Phasianus colchicus</i>	R*	Agricultural Areas	R
Turkey	<i>Meleagris gallapavo</i>	R	Broken Woodlands	O
American Coot	<i>Fulica americana</i>	R*	Lakes,Bays,Marshes	O
Killdeer	<i>Charadrius vociferus</i>	R	Fields,Mudflats	U
Common Snipe	<i>Capella gallinago</i>	R	Marshes,Wet Meadows	U
Spotted Sandpiper	<i>Actitis macularia</i>	R	Streams,Lakes,Ponds	C
Solitary Sandpiper	<i>Tringa solitaria</i>	M*	Streams,Fresh Marshes	R
Greater Yellowlegs	<i>Tringa melanoleucus</i>	?*	Marshes,Mudflats	R
Lesser Yellowlegs	<i>Tringa flavipes</i>	?*	Marshes,Mudflats	R



<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Preferred Habitat</u>	<u>Abundance</u>
Western Gull	<i>Larus occidentalis</i>	R	Ocean,Bays,Lakes	U
Herring Gull	<i>Larus argentatus</i>	WV	Ocean,Bays,Lakes	O
California Gull	<i>Larus californicus</i>	R	Bays,Lakes,Rivers	U
Ring-billed Gull	<i>Larus delawarensis</i>	M*	Ocean,Bays,Lakes	R
Mew Gull	<i>Larus canus</i>	M*	Ocean,Bays,Rivers	R
Bonaparte's Gull	<i>Larus philadelphia</i>	M*	Ocean,Bays,Lakes	R
Arctic Tern	<i>Sterna paradisaea</i>	M*	Ocean,Lakes	A
Caspian Tern	<i>Hydroprogne caspia</i>	M*	Lakes,Bays,Ocean	A
Band-tailed Pigeon	<i>Columba fasciata</i>	SR,M	Coast Conifers	C
Rock Dove	<i>Columba livia</i>	R	Urban,Rock Scarps	R
Mourning Dove	<i>Zenaida macroura</i>	R	Fields	O
Barn Owl	<i>Tyto alba</i>	R*	Abandoned Buildings;Natural Cavities	O
Screech Owl	<i>Otus asio</i>	R	Deciduous Woods	C
Flammulated Owl	<i>Otus flammeolus</i>	?*	Ponderosa Pine	A
Great Horned Owl	<i>Bubo virginianus</i>	R	All Areas	C
Snowy Owl	<i>Nyctea scandiaca</i>	WV	Dunes,Fields,Open Areas	A
Pygmy Owl	<i>Glaucidium gnoma</i>	R	All Areas	C
Burrowing Owl	<i>Speotyto cunicularia</i>	R*	Dry Grasslands	A
Spotted Owl	<i>Strix occidentalis</i>	R	Thickets,Mixed Woods	U
Great Grey Owl	<i>Strix nebulosa</i>	R*	Conifer Forests with Meadows	A
Long-eared Owl	<i>Asio otus</i>	R	Mixed Woods	R
Short-eared Owl	<i>Asio flammeus</i>	R*	Fields,Marshes	A
Saw-whet Owl	<i>Aegolius acadicus</i>	R	Mixed Woods	U
Poor-will	<i>Phalaenoptilus nuttallii</i>	SR*	Rock Scarps	A
Common Nighthawk	<i>Chordeiles minor</i>	SR	All Open Lands	A
Vaux's Swift	<i>Chaetura vauxi</i>	SR	Mixed Woods	U
Anna's Hummingbird	<i>Calypte anna</i>	WV	Residential Areas	R
Rufous Hummingbird	<i>Selasphorus rufus</i>	SR	Mixed Woods,Fields	C
Allen's Hummingbird	<i>Selasphorus sasin</i>	?	Coast,Urban Areas	R
Calliope Hummingbird	<i>Stellula calliope</i>	SR	Mountain Meadows	R
Belted Kingfisher	<i>Megasceryle alcyon</i>	R	Streams,Bays,Rivers	C
Common Flicker	<i>Colaptes auratus</i>	R	Mixed Woods	C
Pileated Woodpecker	<i>Dryocopus pileatus</i>	R	Conifers	U
Acorn Woodpecker	<i>Melanerpes formicivorus</i>	R	Oak Groves	U
Lewis Woodpecker	<i>Asyndesmus lewis</i>	R	All Woods	R



<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Preferred Habitat</u>	<u>Abundance</u>
Yellow-bellied Sapsucker	<i>Syphrapicus varius</i>	R	Mixed Woods	U
Williamson's Sapsucker	<i>Syphrapicus thyroideus</i>	R	Ponderosa Pine	R
Hairy Woodpecker	<i>Dendrocopos villosus</i>	R	Mixed Woods, Conifers	U
Downy Woodpecker	<i>Dendrocopos pubescens</i>	R	Mixed Woods, Deciduous	U
White-headed Woodpecker	<i>Dendrocopos albolarvatus</i>	R	Ponderosa Pine	R
Black-backed Three-toed Woodpecker	<i>Picoides arcticus</i>	R	True Fir or Lodgepole Pine	A
Northern Three-toed Woodpecker	<i>Picoides tridactylus</i>	R*	True Fir or Lodgepole Burns	A
Western Kingbird	<i>Tyrannus verticalis</i>	SR	Ranches, Open Areas	O
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>	SR*	Open Woodland, Chaparral	R
Black Phoebe	<i>Sayornis nigricans</i>	SR*	Fields, Mixed Woods	R
Willow Flycatcher	<i>Empidonax traillii</i>	SR	Wooded Streams	U
Hammond's Flycatcher	<i>Empidonax hammondi</i>	SR	Conifers	U
Dusky Flycatcher	<i>Empidonax oberhalseri</i>	SR	Scrub, Hillsides	U
Western Flycatcher	<i>Empidonax difficilis</i>	SR	Deciduous Woods, Conifers	U
Western Wood Peewee	<i>Contopus sordidulus</i>	SR	Conifers, All Woods	C
Olive-sided Flycatcher	<i>Nuttallornis borealis</i>	SR	Mixed Woods	U
Horned Lark	<i>Eremophila alpestris</i>	R*	Open Fields, Alpine	R
Violet-green Swallow	<i>Tachycineta thalassina</i>	SR	Around Water	U
Tree Swallow	<i>Iridoprocne bicolor</i>	SR	Rivers, Mountain Lakes	C
Rough-winged Swallow	<i>Stelgidopteryx ruficollis</i>	SR	Around Water	R
Barn Swallow	<i>Hirundo rustica</i>	SR	Around Water	U
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	SR	Rock Scarps, Buildings	C
Purple Martin	<i>Progne subis</i>	SR	Around Water	R
Gray Jay	<i>Perisoreus canadensis</i>	M	Mountain Conifers	R
Steller's Jay	<i>Cyanocitta stelleri</i>	R	Mixed Conifers	C
Scrub Jay	<i>Aphelocoma coerulescens</i>	R	Brush, Urban Areas	U
Common Raven	<i>Corvus corax</i>	R	Mountain, Rock scarps	U
Common Crow	<i>Corvus branchyrhynchus</i>	R	Open Woods, Farms	O
Clark's Nutcracker	<i>Nucifraga columbiana</i>	M	Timberline Conifers	O
Black-capped Chickadee	<i>Parus atricapillus</i>	R	Deciduous Woods, Conifer Edges	C
Mountain Chickadee	<i>Parus gambeli</i>	R	Conifers	U
Chestnut-backed Chickadee	<i>Parus rufescens</i>	R	Conifers, Mixed Woods	U
Plain Titmouse	<i>Parus inornatus</i>	R*	Chaparral	R
Common Bushtit	<i>Psaltiriparus minimus</i>	R	Deciduous Woods	C



<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Preferred Habitat</u>	<u>Abundance</u>
White-breasted Nuthatch	<i>Sitta carolinensis</i>	R	Deciduous, Mixed Woods	C
Red-breasted Nuthatch	<i>Sitta canadensis</i>	R	Conifers, Mixed Woods	C
Pygmy Nuthatch	<i>Sitta pygmaea</i>	M	Ponderosa Pine	A
Brown Creeper	<i>Certhia familiaris</i>	R	Conifers, Mixed Woods	U
Wrentit	<i>Chamaea fasciata</i>	R	Coast, Mixed Woods	O
Dipper	<i>Cinclus mexicanus</i>	R	Mountain Streams	U
House Wren	<i>Troglodytes aedon</i>	SR	Deciduous Woods, Brush	C
Winter Wren	<i>Troglodytes troglodytes</i>	R	Dense Conifers	C
Bewick's Wren	<i>Thryomanes bewickii</i>	R	Deciduous Woods	C
Canon Wren	<i>Catherpes mexicanus</i>	?*	Rock Rims, Canyons	R
Rock Wren	<i>Salpinctes obsoletus</i>	R	Rock Rims, Boulders	R
Mockingbird	<i>Mimus polyglottos</i>	?*	Ranches, Urban Areas	A
American Robin	<i>Turdus migratorius</i>	R	Fields, Residential, Forest Openings	C
Varied Thrush	<i>Ixoreus naevius</i>	R, M	Conifers, Mixed Woods	C
Hermit Thrush	<i>Catharus guttata</i>	R	Deciduous Woods, Conifers	U
Swainson's Thrush	<i>Catharus ustulata</i>	SR	Conifers, Mixed Woods	C
Western Bluebird	<i>Sialia mexicana</i>	R	Open Woods	U
Mountain Bluebird	<i>Sialia currucoides</i>	R	Open Forest in Mountains	O
Townsend's Solitaire	<i>Myadestes townsendi</i>	R	Conifers	U
Golden-crowned Kinglet	<i>Regulus satrapa</i>	R	Conifers	C
Ruby-crowned Kinglet	<i>Regulus calendula</i>	R	Mixed Woods, Conifers	U
Water Pipit	<i>Anthus spinoletta</i>	R	Fields, Mountains	O
Bohemian Waxwing	<i>Bombycilla garrulus</i>	WV*	Deciduous Woods	A
Cedar Waxwing	<i>Bombycilla cedrorum</i>	R	Open Woods, Near Water	U
Northern Shrike	<i>Lanius excubitor</i>	M*	Open Country	A
Loggerhead Shrike	<i>Lanius ludovicianus</i>	M	Open Country	R
Starling	<i>Sturnus vulgaris</i>	R	Open Fields, Farms	U
Hutton's Vireo	<i>Vireo huttoni</i>	R	Conifers, Mixed Woods	R
Solitary Vireo	<i>Vireo solitarius</i>	SR	Deciduous Woods	U
Red-eyed Vireo	<i>Vireo olivaceus</i>	SR*	Deciduous Woods	R
Warbling Vireo	<i>Vireo gilvus</i>	SR	Deciduous Woods	O
Orange-crowned Warbler	<i>Vermivora celata</i>	SR	Brush, Low Shrubs	C
Nashville Warbler	<i>Vermivora ruficapilla</i>	SR	Oak, Brushy Slopes	U
Yellow Warbler	<i>Dendroica petechia</i>	SR	Stream Bottoms	U
Yellow-rumped Warbler	<i>Dendroica coronata</i>	R	Streams	C
Black-throated Gray Warbler	<i>Dendroica nigrescens</i>	SR	Mixed Woods, Shrubby Openings	U



<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Preferred Habitat</u>	<u>Abundance</u>
Townsend's Warbler	<i>Dendroica townsendi</i>	WV	Conifers	U
Hermit Warbler	<i>Dendroica occidentalis</i>	SR	Conifers	U
MacGillivray's Warbler	<i>Oporornis tolmiei</i>	SR	Mixed Woods, Brush	C
Common Yellowthroat	<i>Geothlypis trichas</i>	SR	Fresh-water Marshes	O
Yellow-breasted Chat	<i>Icteria virens</i>	SR	Moist Thickets	U
Wilson's Warbler	<i>Wilsonia pusilla</i>	SR	Deciduous Woods	C
House Sparrow	<i>Passer domesticus</i>	R	Residential, Farms	R
Western Meadowlark	<i>Sturnella neglecta</i>	R	Open Fields	U
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	R	Fresh-water Marshes	U
Tricolored Blackbird	<i>Agelaius tricolor</i>	SR*	Freshwater Marshes	R
Northern Oriole	<i>Icterus galbula</i>	SR	Shade Trees, Irrigated Valleys	O
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	R	Fields, Farms	U
Brown-headed Cowbird	<i>Molothrus ater</i>	SR	Fields, Farms	U
Western Tanager	<i>Piranga ludoviciana</i>	SR	Conifers	C
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	SR	Deciduous Woods	U
Lazuli Bunting	<i>Passerina amoena</i>	SR	Thickets	U
Evening Grosbeak	<i>Hesperiphona vespertina</i>	R	Conifers, Deciduous Woods	U
Purple Finch	<i>Carpodacus purpureus</i>	R	Conifers, Deciduous Woods	U
Cassin's Finch	<i>Carpodacus cassinii</i>	?*	True Fir	A
House Finch	<i>Carpodacus mexicanus</i>	R	Residential, Farms	U
Common Redpoll	<i>Acanthis flammea</i>	WV*	Brushy Areas	A
Pine Siskin	<i>Spinus pinus</i>	R	Conifers, Mixed Woods	C
American Goldfinch	<i>Spinus tristis</i>	R	Grasslands	C
Lesser Goldfinch	<i>Spinus psaltria</i>	R	Grasslands	U
Red Crossbill	<i>Loxia curvirostra</i>	R	Conifers	U
White-winged Crossbill	<i>Loxia leucoptera</i>	WV*	Conifers	A
Green-tailed Towhee	<i>Chlorura chlorura</i>	SR	Chaparral, Thickets	R
Rufous-sided Towhee	<i>Pipilo erythrophthalmus</i>	R	Thickets	C
Brown Towhee	<i>Pipilo fuscus</i>	?*	Chaparral	R
Savannah Sparrow	<i>Passerculus sandwichensis</i>	R	Open Fields, Dunes	C
Vesper Sparrow	<i>Poocetes gramineus</i>	SR*	Fields, Farms	U
Dark-eyed Junco	<i>Junco hyemalis</i>	R	Brush, Mixed Woods, Conifers, Deciduous	C
Chipping Sparrow	<i>Spizella passerina</i>	SR	All Open Areas	U
Harris' Sparrow	<i>Zonotrichia querula</i>	WV*	Open Fields	O
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	R	Willows, Open Brush	C
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	WV	Weed Patches	C











## TITLE 2300 - RECREATION MANAGEMENT

Exhibit 1

 <b>National Forest</b> CAMP AND PICNIC SITE <b>LEVELS OF:</b> <b>ENVIRONMENTAL MODIFICATION</b> 	<b>&amp;</b> <b>DEVELOPMENT SCALE</b> 	<b>RECREATION EXPERIENCES</b> 
<p>Minimum site modification. Rustic or rudimentary improvements designed for protection of the site rather than comfort of the users. Use of synthetic materials avoided. Minimum controls are subtle. No obvious means regimentation. Spacing informal and extended to minimize contacts with others. Motorized access not provided or permitted.</p>	<p><b>1</b> primitive</p>	<p>Primitive forest environment is dominant. Rudimentary and isolated development sites beyond the sight or sound of inharmonious influences. Maximum opportunity for experiencing solitude, testing skills and compensating for the routines of daily living. User senses no regimentation. Feelings of physical achievement in reaching site is important.</p>
<p>Little site modification. Rustic or rudimentary improvements designed for protection of the site rather than comfort of the users. Use of synthetic materials avoided. Minimum controls are subtle. Little obvious regimentation. Spacing informal and extended to minimize contacts with others. Motorized access provided or permitted. Primary access over primitive roads.</p>	<p><b>2</b> secondary primitive</p>	<p>Near primitive forest environment. Outside influences present but minimized. Feeling of accomplishment associated with low standard access is important but does not necessarily imply physical exertion to reach site. Opportunity for solitude and chance to test outdoor skills is present.</p>
<p>Site modification moderate. Facilities about equally for protection of site and comfort of users. Contemporary/rustic design of improvements is usually based on use of native materials. Inconspicuous vehicular traffic controls usually provided. Roads may be hard surfaced and trails formalized. Development density about 3 family units per acre. Primary access to site may be over high standard well traveled roads. VIS, if available, is informal and incidental.</p>	<p><b>3</b> intermediate</p>	<p>Forest environment is essentially natural. Important that a degree of solitude is combined with some opportunity to socialize with others. Controls and regimentation provided for safety and well-being of user sufficiently obvious to afford a sense of security but subtle enough to leave the taste of adventure.</p>
<p>Site heavily modified. Some facilities designed strictly for comfort and convenience of users but luxury facilities not provided. Facility designs may tend toward and incorporate synthetic materials. Extensive use of artificial surfacing of roads and trails. Vehicular traffic controls present and usually obvious. Primary access usually over paved roads. Development density 3-5 family units per acre. Plant materials usually native. Visitor Information Services frequently available.</p>	<p><b>4</b> secondary modern</p>	<p>Forest environment is pleasing and attractive but not necessarily natural. Blending of opportunities for solitude and socializing with others. Testing of outdoor skills on site mostly limited to the camping activity. Many user comforts available. Contrast to daily living routines is moderate. Invites marked sense of security.</p>
<p>High degree of site modification. Facilities mostly designed for comfort and convenience of users include flush toilets; may include showers, bath houses, laundry facilities, and electrical hookups. Synthetic materials commonly used. Formal walks or surfaced trails. Regimentation of users is obvious. Access usually by high speed highways. Development density 5 or more family units per acre. Plant materials may be foreign to the environment. Formal VIS services usually available. Designs formalized and architecture may be contemporary. Mowed lawns and clipped shrubs not unusual. (Class 5 sites only provided in special situations or close to large cities where other lands are not available.)</p>	<p><b>5</b> modern</p>	<p>Pleasing environment attractive to the novice or highly gregarious camper. Opportunity to socialize with others very important. Satisfies urbanites need for compensating experiences and relative solitude but less intensive than in classes 1-4. Obvious to user that he is in secure situation where ample provision is made for his personal comfort and he will not be called upon to use undeveloped skills.</p>



## APPENDIX G

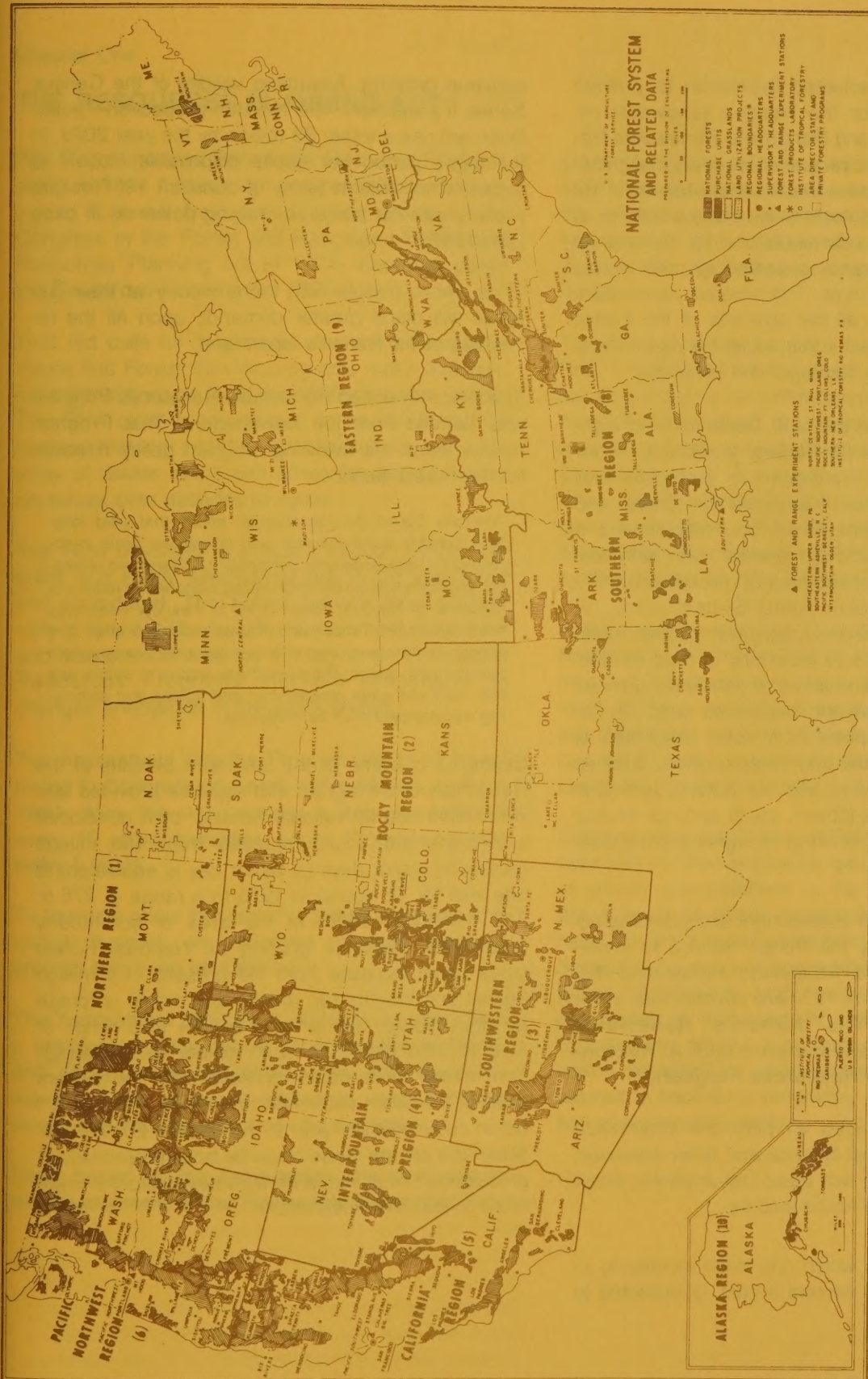
### SUMMARY (Partial)

A Summary of a Renewable Resource  
Assessment and a Recommended  
Renewable Resource Program.

As required by the Forest and Rangeland  
Renewable Resources Planning Act of 1974

Forest Service  
U.S. Department of Agriculture  
Washington, D.C. 20250  
February 1976







## INTRODUCTION

In 1974, Congress enacted legislation to provide long-term planning for the Nation's renewable resources. The Forest and Rangeland Renewable Resources Planning Act directs the Secretary of Agriculture to periodically assess the national situation of the forest and rangeland resources, and to submit, at regular intervals, recommendations for long-range Forest Service programs essential to meet future needs for those resources. The program recommendations are to cover all the activities of the Forest Service. This document summarizes the response of the Forest Service to that legislative direction.

The Forest Service in the U.S. Department of Agriculture is responsible for Federal leadership in forestry, including the management, protection and utilization of the natural resources on forests and related rangelands—one-third of the Nation's land. It carries out this role through several main activities: (1) Protection and management of resources on 187 million acres of National Forest System lands; (2) cooperation with State and local governments, forest industries and private landowners to help protect and manage 631 million acres of non-Federal forest and associated range and watershed land; (3) research in various aspects of forestry conducted at 80 different laboratories and other scientific facilities throughout the country; and (4) participation with other agencies in manpower, youth and community assistance programs seeking to improve living conditions in rural areas.

The results of the first assessment and planning activities undertaken by the Forest Service to implement the Forest and Rangeland Renewable Resources Planning Act of 1974 are covered fully in the two documents: **The Nation's Renewable Resources—An Assessment**; and **A Recommended Renewable Resources Program**.

The Assessment utilizes all pertinent information compiled by the Forest Service and other agencies. However, it rests on two basic assumptions about future population and future income.

The U.S. population, which has been increasing at an annual rate of 1.3 percent a year, is expected to

continue growing. Assuming validity of the Census Series II projection—the medium projection—population will rise another 86 million by the year 2020. In the same period per capita disposable income is expected to triple in terms of constant 1967 dollars (dollars with the same purchasing power as in base year 1967).

Thus, more people with more money at their disposal will place greater demands upon all the resources of the Nation's forest land.

The Recommended Renewable Resources Program was derived from the Assessment. That Program recommends the following program policy direction for the Forest Service:

"Intensify Forest Service program efforts that yield long-term benefits commensurate with investment costs in accord with these underlying principles: (1) Dispersed recreation opportunities will be emphasized along with a moderate allocation of National Forest lands to statutory wilderness designation; (2) Timber and Range programs shall give priority to the most cost-effective resource management opportunities; and (3) Program efforts relative to wildlife and fish, land and water stewardship, and human and community development shall be enhanced."

Examples of some of the long-term benefits of the Recommended Program that could be provided are: Recreation use in National Forests, both developed and dispersed, could increase from 198 million recreation visitor days (a visitor day is equivalent to one visit for 12 hours) in 1975 to a range of 276 to 342 million in 2020. In the area of commodity production, livestock grazing on National Forest lands could increase from the present 11.3 million animal unit months (an animal unit month is forage for one mature cow for one month) to a range of 18.0 to 20.4 million in 2020; timber sale offerings from those lands could increase from the current level of 2.4 billion cubic feet to a range of 3.3 to 4.1 billion cubic feet per year in the decade 2011–2020. State and private lands could be boosted similarly in productivity. And, research activities could be intensified to support these efforts.



## Chapter One

### THE RESOURCES PLANNING ACT

The Recommended Renewable Resource Program, along with the Assessment and considerations leading to it, result from the direction given by the Congress in the Forest and Rangeland Renewable Resources Planning Act of 1974—hereafter called the Resources Planning Act (RPA).

That Act calls for long-range planning adequate to insure that Forest Service programs make appropriate contributions to meet the Nation's future needs. The RPA calls for information to be developed for decision-making and for identification of the wide array of issues which can affect the use of natural resources over decades to come.

The RPA describes a process through which program and policy alternatives are to be articulated and considered. The Forest Service must periodically prepare a Renewable Resources Assessment and also present a series of long-range Renewable Resources Programs that are responsive to changes anticipated in the years ahead.

The Assessment and the Program are to be transmitted to Congress now and, with updating, again in 1980. Also, the Act requires a new Assessment every 10 years thereafter, and a Program revision every 5 years.

To translate goals into tentative action programs and annual budgets, an "objective oriented" planning process has been established.

The Assessment provides a physical inventory and a description of the overall situation—the problems and opportunities, potential supply and likely demand, a view of prices related to various output levels, and impacts which can be expected.

Then, based on the Assessment, the next step is the development of the Renewable Resources Pro-

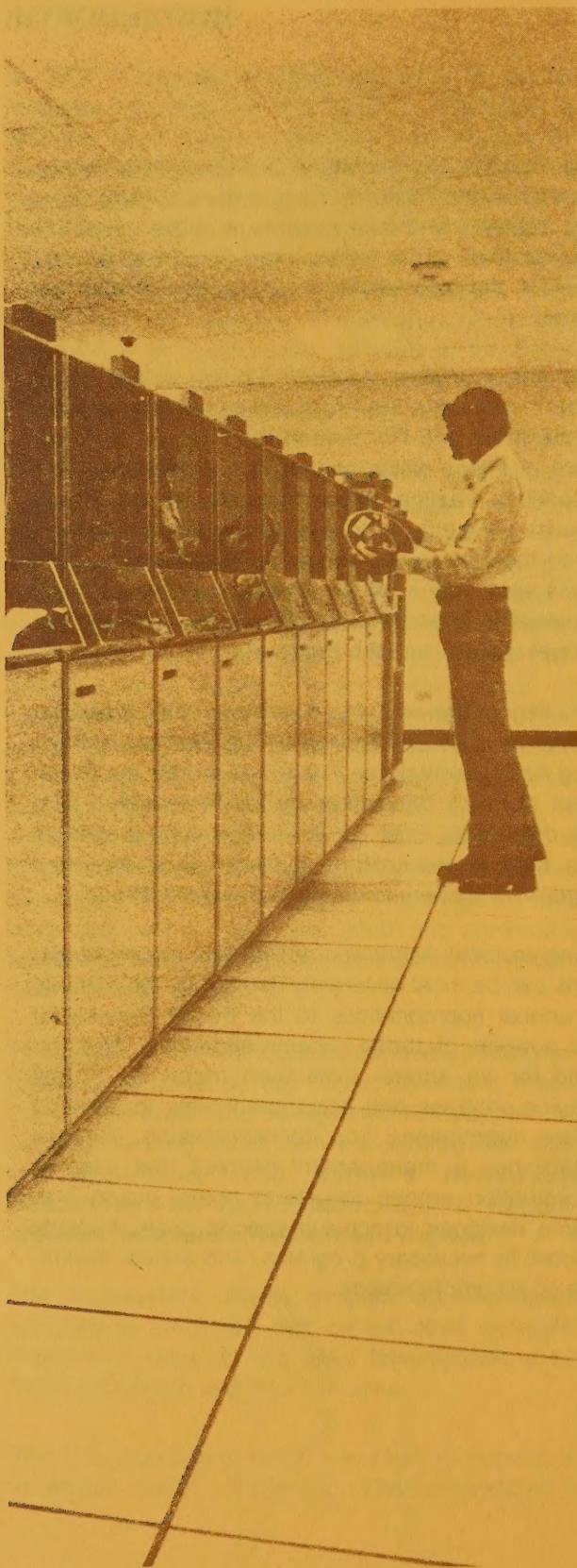
gram that is the Secretary of Agriculture's recommendation for Forest Service actions to help solve the problems and take advantage of the opportunities identified in the Assessment. The Program also displays the alternatives among which choices are made.

The Act addresses program funding in two ways. First, it calls upon the President to transmit, with the Assessment and Recommended Program, a Statement of Policy which expresses his intentions with respect to framing budget requests for the Forest Service for the 5- or 10-year period ahead. Second, when the President's budget is transmitted to Congress each year it will be accompanied by a budget explanation describing the relationship between the budget request and the Program.

A dialogue between the Executive and Legislative Branches is set into motion by the Resources Planning Act. Congress may revise or modify the Statement of Policy transmitted by the President. If serious differences exist, the Act's procedural guidelines can lead to discussions between Executive and Legislative leaders to clarify and resolve issues.

Congressional disposition of Program recommendations can be most accurately gauged by the patterns of annual appropriations to the Forest Service for the support of those recommendations. The Act calls for an annual evaluation report on Forest Service progress and accomplishments to assist in future negotiations and decisionmaking. Thus, it establishes a management process that assures coordination among long-term goals, action programs designed to achieve specific goals, budgets tailored to necessary programs, and annual evaluation of accomplishments.





Data for each System was analyzed

F.S.-523532

## Chapter Two

### THE ASSESSMENT

The Resources Planning Act calls for physical data and social and economic information about all the Nation's renewable resources of forest, range and related lands. This information includes: an up-to-date inventory; an estimate of future uses and demands; and ways that, from the physical, social, and economic standpoint, we can affect the yield from those resources.

Findings from the Assessment provide the necessary background for discussion of goals, targets and programs. The Assessment shows that:

**1. Demands for forest and range products and services have been rising rapidly—and projections indicate a continuation of this trend.**

Growth has been especially fast for some forms of outdoor recreation. (For example, the number of households camping more than tripled between 1960 and 1973, from 4.3 million to 14.3 million.) Increases for most other services and products were more modest, but substantial. (Between 1960 and 1970, for example, hunting and fishing use rose from 563 million days to 771 million. Timber consumption during that same period was up 22 percent.)

Continued growth in demand is projected from assumed increases in population, economic activity, income, prices, and the other factors.

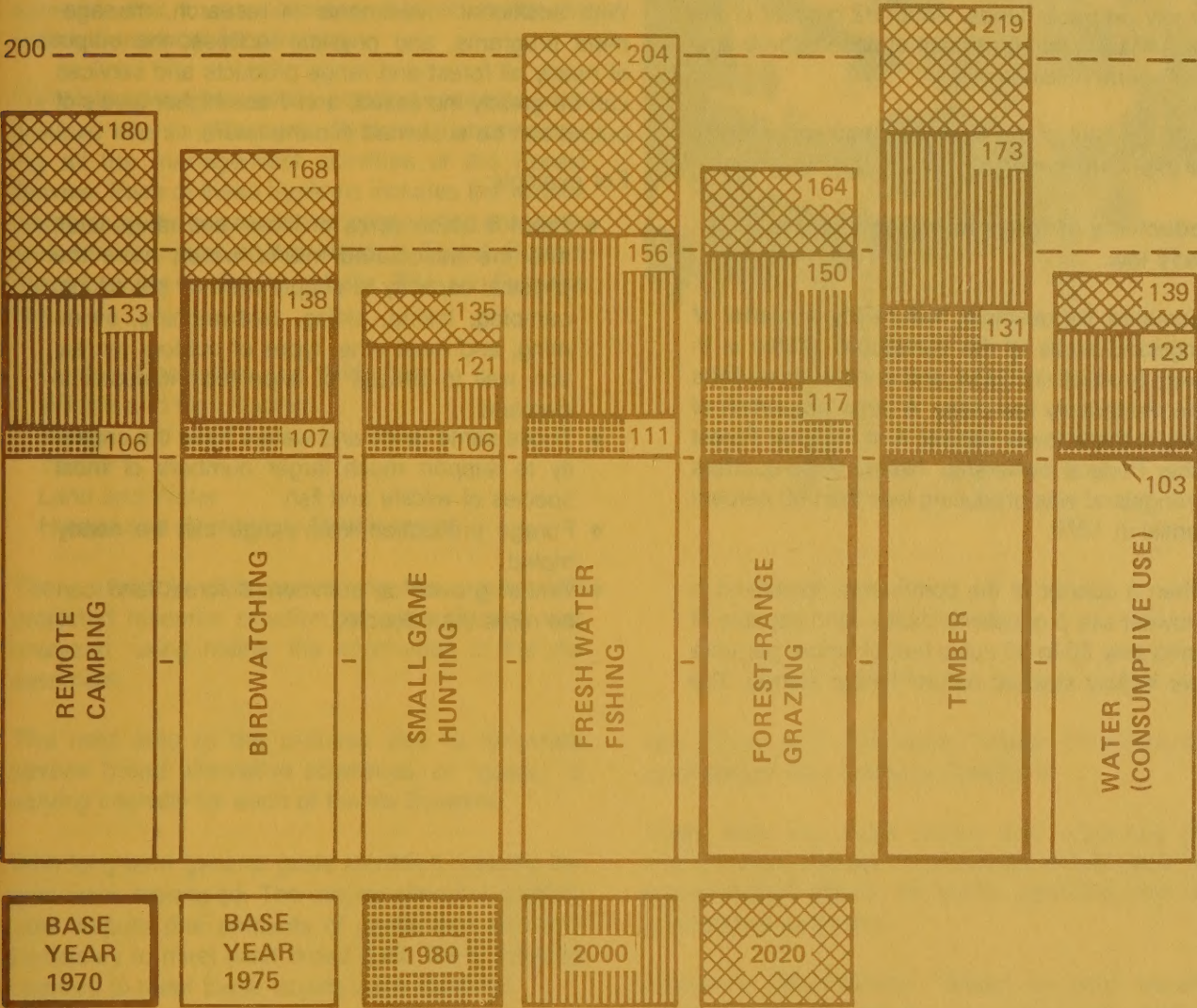
Overall, the increases in demands forecast for forest and range products are well above the levels that can be met with present management programs and existing facilities

**2. The Nation has a huge forest and range land base.**

In 1970, 1.6 billion acres, some 69 percent of the Nation's area, were classified as forest and range land. About two-thirds of this area was in rangeland and noncommercial forest. Another 31 percent—500 million acres—was commercial forestland capable of producing in excess of 20 cubic feet per acre of industrial wood a year in natural timber stands and not withdrawn for other uses. The remaining 3 percent—some 48 million acres—was classified as inland water.



# ESTIMATED GROWTH IN DEMAND FOR FOREST AND RANGE LAND



This graph shows the expected growth in demand for certain forest and range land uses. Target years are shown as percentages of the base year (100 percent). For example, the demand for forest range grazing in 1970 was 213 million animal-unit months and is expected to increase to 117 percent by 1980 and to 164 percent by 2020.



### **3. Most of the forest and range land is in non-Federal ownership.**

Some 99 percent of prairie grasslands, 94 percent of plains grasslands, and 84 percent of mountain grasslands are in non-Federal ownership, nearly all private. The shrub ecosystems, on the other hand, are largely on public lands. About 82 percent of the sagebrush land and 70 percent of desert shrub land are on Federal holdings.

About 73 percent of the Nation's commercial forestland is in private ownership.

### **4. Productivity of forest and range land is generally low.**

It is estimated, for example, that nearly a quarter of the rangeland areas in the contiguous States is in the lowest productivity class, and another three-fifths is in the moderately low class. A large proportion of the lands in these lower classes is in National Forest and other Federal ownership. Nearly three-quarters of the rangeland was producing less than 60 percent of potential in 1970.

More than a quarter of the commercial forestland is in the lowest site productivity class—land capable of producing only 20 to 50 cubic feet of timber per acre per year in fully stocked natural timber stands. The

potential yields indicated by site productivity classifications are generally not being realized.

### **5. Forest and range lands have the capacity to produce much more of nearly all products and services.**

With additional investments in research, management programs, and physical facilities, the output of nearly all forest and range products and services can be greatly increased, and these higher levels of output can be sustained into the future.

For example:

- The 1.6 billion acres of forest and range land, and the associated inland water, have the physical capacity to supply sites for picnicking, camping, hiking, skiing, birdwatching, swimming, and most other types of outdoor recreation well in excess of expected increases in demand.
- Those same lands and waters have the capacity to support much larger numbers of most species of wildlife and fish.
- Forage production from range can be nearly tripled.
- Timber growth on commercial forest land can be more than doubled.



## Chapter Three

### THE FRAMEWORK FOR DECISION

A long-range program for forest and range resources encompasses so many diverse but interrelated activities for which the Forest Service is responsible that it was necessary, first, to devise an orderly framework for planning.

For this purpose the various planning concerns were grouped into six "Resource Systems," encompassing all the management activities of the Forest Service. Each of these Systems includes the various elements of the research and cooperative programs and administration of the National Forest System related to the particular activity. The six Systems are:

- Outdoor Recreation and Wilderness
- Wildlife and Fish Habitat
- Range
- Timber
- Land and Water
- Human and Community Development

Then, available data concerning the current and projected resource situation for each System was analyzed, using mainly the information in the Assessment.

The next step in the process was to formulate several broad alternative objectives, or "goals," of varying intensity for each of the six Systems.

With long-term general goals identified, specific targets were developed. The targets were the quantifiable outputs (the amounts of goods and services) necessary to meet each broad goal. Then, activities required to meet these targets were identified.

Finally, from the literally thousands of possible combinations of systems, goals, targets, and activities, eight Alternative Program Directions were constructed. The number might have been more, or less, but the study and review of about eight alternatives were needed in order to embrace a broad but reasonable range of program possibilities.

Each of the eight alternatives is made up of a selected goal from each resource system to form a total program and policy direction for the Forest Ser-



vice. These eight Alternative Program Directions are summarized very briefly in Chapter 4.

There were four basic factors that influenced the final decision process: (1) economic effectiveness; (2) environmental effects; (3) public comment; and (4) professional judgment.

*Economic Effectiveness.* Values for each benefit and cost were developed using procedures consistent with directions and guidelines issued by the Office of Management and Budget and the Water Resources Council. Both commodity and amenity values were given dollar estimates. Costs for all activities in each Alternative Program Direction were totaled, as were the estimated dollar values of benefits. Both costs and benefits were discounted at a prescribed interest rate. The discounted benefits minus costs then resulted in the "Present Net Worth"—an economic indicator useful for comparing alternatives.



*Environmental Effects.* Positive and negative effects were analyzed in relation to soils, water, vegetation, fish and wildlife, endangered species, wilderness resources, esthetics and social and economic results. The Recommended Program, reviewed in draft by the public, serves as an environmental impact statement and has been filed with the Council on Environmental Quality as required by the National Environmental Policy Act of 1969.

*Public Comment.* This vital aspect of the process took place in four major stages. A previously developed "Environmental Program for the Future" was provided for public review in 1974. The "Outline" of Forest Service plans for implementing RPA was unveiled in February 1975, as a means of determining if the approach was right. "Alternative Goals" for the six resource systems invited public response in March of the same year to see if the range of alternatives was reasonable. And finally, in August 1975, draft documents of the "Assessment" and "Program" were submitted to the public for critical appraisal.

Almost 4,000 documents and letters containing information and suggestions were received. This citizen response from every State in the Nation was buttressed by testimony from participants in 14 public hearings, hundreds of briefings, special workshops, and public meetings around the country.

Several patterns of public reaction took form in the evaluation process.

For example, the public was in general agreement on such suggestions as more dispersed recreation on National Forest lands with more developed recreation on private lands; research focused clearly on resource system goals; environmentally sound for-

est management; intensive timber production on the higher capability lands; improved wood utilization; increased resource production and reforestation on private lands; and meeting Federal standards of air and water quality. There was considerable public support for the high goals in all resource systems.

General conflict was expressed on such issues as wilderness, the methods and rate of timber harvesting on National Forests, and whether or not the Forest Service Program should have a Human and Community Development System.

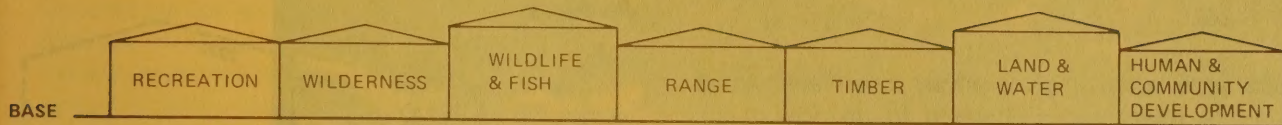
Considerable concern was expressed about the validity of such basic assumptions as projected population trends, economic growth, standards of living, energy, and minerals supply and demand projections.

Some expressed concern about how the national Recommended Program would be broken down by regions of the country, about extension of Federal controls at the expense of State and private rights, about possible overbuilding of roads, and about inadequacy of definition of the specific roles of Federal and State agencies in the program.

*Professional Judgment.* Uncertainty about the future, especially the more distant future, poses questions about all long-range planning. Yet natural resources planning must be long range because of the slow natural processes that are involved. Such planning is further handicapped by inadequate information about the natural resources themselves. Hence judgment, mainly judgment of knowledgeable professionals and scientists, had to be one of the key factors in choosing among the complex set of alternatives considered here.



## THE RECOMMENDED RENEWABLE RESOURCE PROGRAM



(Illustration of Program Direction by comparison to current trends or present levels.)

The Renewable Resource Program being recommended calls for intensification of efforts that will yield long-term benefits equal to or above investment costs. With some modifications, the goals included approximate the Alternative VI Program Direction described in Chapter 4. The Recommended Program especially focuses on three areas:

- (1) Dispersed recreation opportunities would be emphasized, along with a moderate allocation of National Forest land to statutory wilderness designation.
- (2) Timber and range activities would place priority on the most cost-effective resource management and investment opportunities on all lands.
- (3) Efforts on behalf of wildlife and fish, land and water stewardship, and human and community development would be accelerated.

Following are descriptions of the goals, target activities, and expected results of the resource systems which make up the Recommended Program. Although each is discussed separately, it should be kept in mind that relationships among the systems are particularly important. Program costs for each system and the total costs for the Recommended Program are given in terms of 1975 constant dollars.

### RECREATION

The goal for this system is to increase the supply of outdoor recreation opportunities and services through Forest Service programs which emphasize dispersed recreation.

The National Forest System, with its large land base, proximity of some forests to population centers and many natural attractions, has one of the greatest potentials for providing additional relatively low-cost dispersed recreation opportunities. Because of this great potential, it is unique among Federal and State providers of recreation experiences.

In 1974, two-thirds of National Forest visitor use was for dispersed recreation (as opposed to "developed site" recreation). Public comment during the RPA planning process clearly favored dispersed recreation for National Forest lands, with preference that the private sector provide increased emphasis on developed recreational facilities. The recommended goal is also consistent with proposals made by the Outdoor Recreation Resources Review Commission, the Public Land Law Review Commission, and the Bureau of Outdoor Recreation.

Under this program, recreation use in National Forest dispersed areas would increase from 125.0 million recreation visitor days in 1975 to a range of 128.3 to 140.0 million in 1980 and 176 to 220 million annually during the decade 2011-2020.

National Forest land also provides major opportunities for moderately developed recreation, such as campgrounds and picnic areas. The Recommended Program would provide for continuation of the current Forest Service share of such developed recreation opportunities. In addition, capital intensive developments, such as ski and summer resorts, would



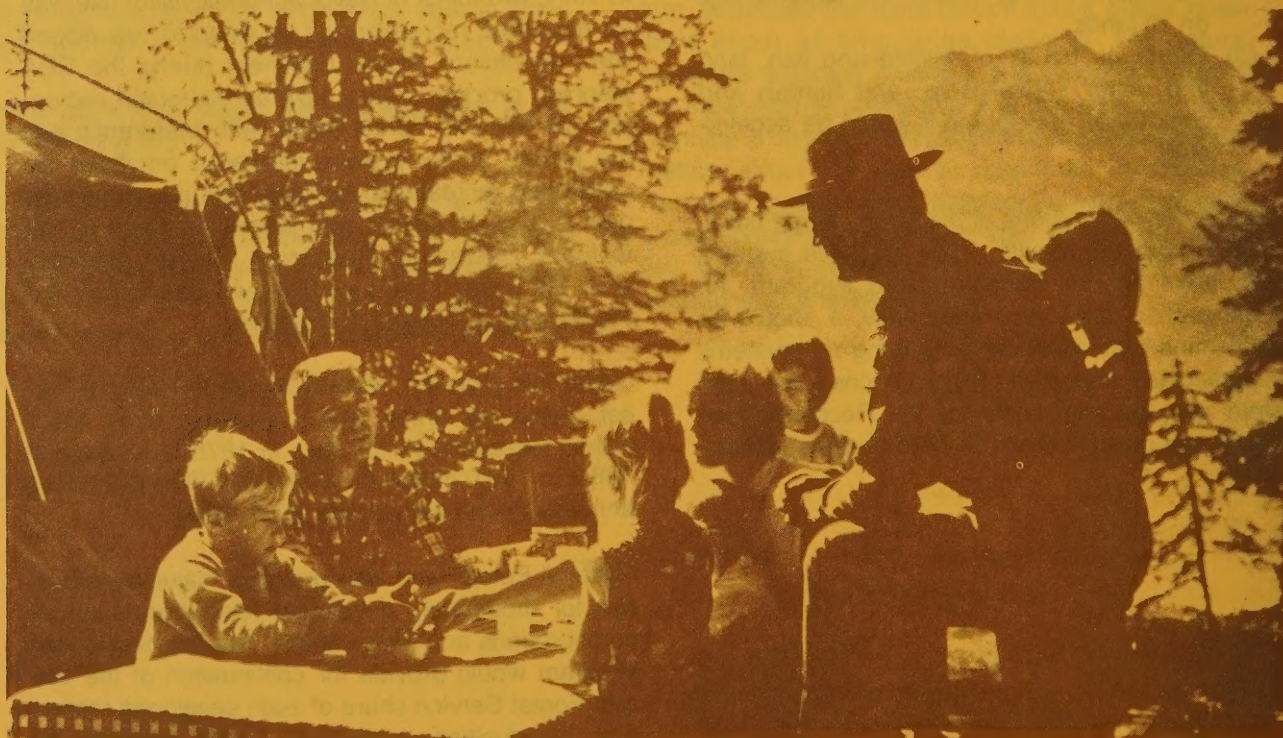
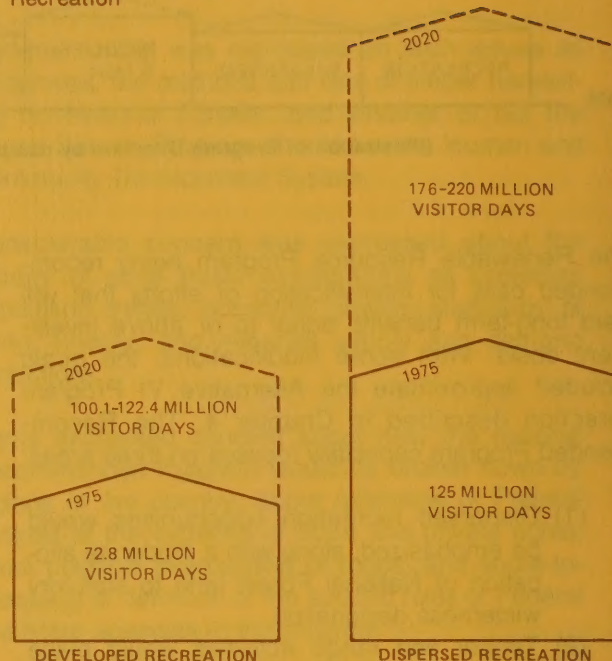
be encouraged where there is demand and interest in development by the private sector. Recreation use in National Forest developed sites would increase from 72.8 million recreation visitor days in 1975 to a range of 74.8 to 81 million in 1980 and 100.1 to 122.4 million annually in the decade 2011–2020.

Assistance would be given private forest landowners who are interested in helping to provide public recreation opportunities. As the private sector moves more rapidly to accommodate additional recreational use, State and Private Forestry will assist States and private forest landowners as a part of its integrated multiple-resource assistance program provided through State Foresters, particularly in dispersed activities.

Research would strengthen technology and understanding of recreation demands, trends, values, and environmental impacts, as well as quantify and rank commodity and amenity values.

Total costs for the Recommended Program for the Recreation System would be \$246.9 million in 1980, rising to \$357.7 million annually in the decade 2011–20. Costs in 1975 were \$65.8 million.

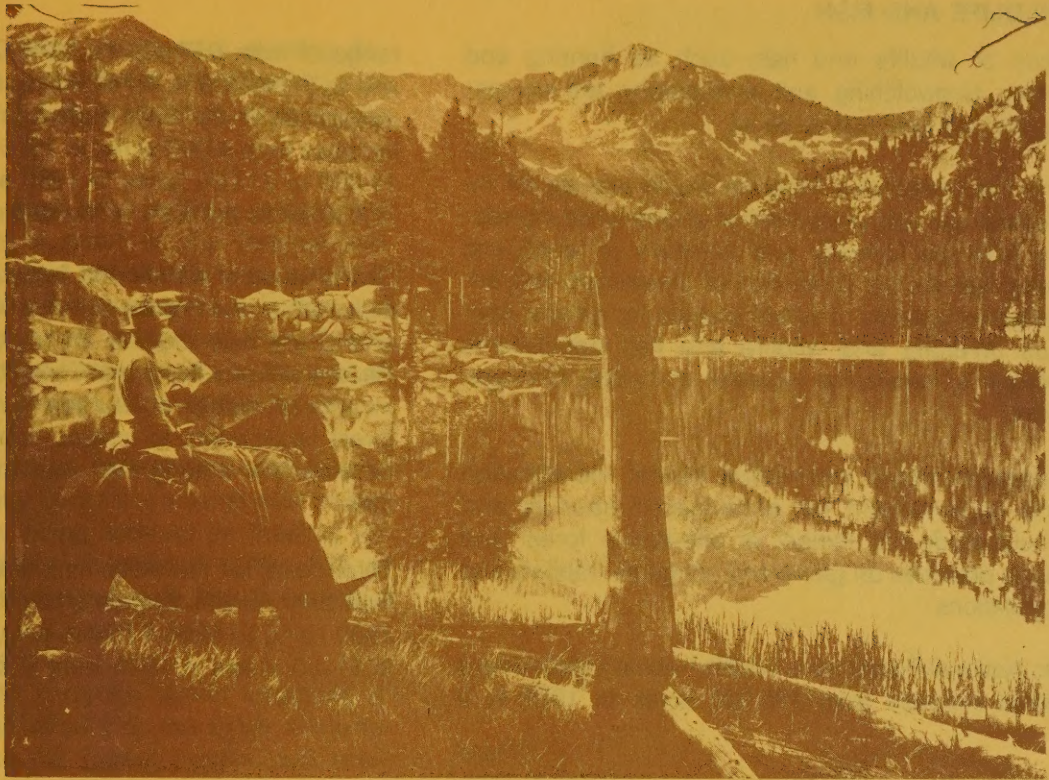
# RECREATION Emphasis on Dispersed Recreation



Public comment during the planning process clearly favored dispersed recreation for National Forest lands

F.S.-518246





A moderate, but significant, increase in wilderness on National Forest land

F.S.-505253

## WILDERNESS

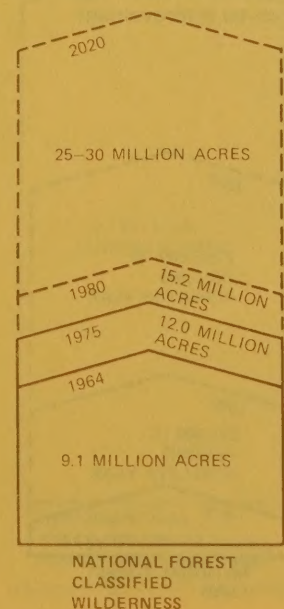
The program being recommended reflects Congressional direction and public desire that a substantial part of our natural land heritage be classified as wilderness for the enjoyment of present and future generations.

The Wilderness Act of 1964 designated 9.1 million acres of National Forest wilderness; additions have brought the present total to 12 million acres. Additional areas have been proposed which could raise the total National Forest wilderness acreage to 15.2 million acres. The Recommended Program for wilderness provides for a moderate, but significant, increase in wilderness on National Forest land. The National Forest wilderness acreage would remain nearly constant to 1980 at 15.2 million acres; then recommendations would be made to Congress to increase the acreage to 25-30 million by 2020. This allocation of land would assure a high-quality wilderness inventory.

Research would be expanded to clarify the role of natural and prescribed fire in wilderness and determine how to balance wilderness recreation use within the limits of nature preservation.

Total costs for the Recommended Program for the Wilderness System would be \$12.8 million in 1980, rising to \$31.7 million annually in the decade 2011-20. Costs in 1975 were \$6.5 million.

### WILDERNESS PROPOSALS For The Future





## WILDLIFE AND FISH

Uses of wildlife and fish, such as hunting and fishing, birdwatching, and photography, are increasing and will continue to do so.

The Recommended Program would provide for increased use and enjoyment of wildlife while increasing both the diversity and numbers of fauna and would assure the protection of threatened and endangered species. It would provide for greater species diversity and wildlife and fish populations through a substantial increase in habitat management.

Research would emphasize habitat identification and improvement for endangered species and would study the impact of alternative forest and range practices on game and nongame habitats and populations.

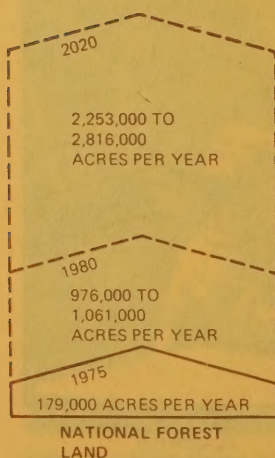
On National Forest land, wildlife habitat improvement would increase from 175,000 acres in 1975 to a

range of from 957,000 to 1,040,000 acres in 1980 and to 2,195,000 to 2,744,000 acres per year in the decade 2011–20. Fish habitat improvement would increase from 4,000 acres in 1975 to a range of from 19,000 to 21,000 acres in 1980 and from 58,000 to 72,000 acres annually in the decade 2011–2020.

Coordination of wildlife and fish habitat management activities of the Forest Service with other Federal and State agencies is an important part of the Recommended Program. Technical assistance and incentives would encourage nonindustrial private forest landowners to include habitat protection and development among their own management objectives.

Total costs for the Recommended Program for the Fish and Wildlife System would be \$58.2 million in 1980 rising to \$206.4 million annually in the decade 2011–20. Costs in 1975 were \$16.5 million.

### WILDLIFE AND FISH Habitat Improvement



Increased use and enjoyment of wildlife while increasing diversity and numbers

F.S.-522287



## RANGE

In recent decades, there has been a growing dependence on feed concentrates for fattening livestock for market, but this situation is gradually changing.

Recent worldwide crop failures have greatly increased purchases of grain on the international market, and world grain stocks are less plentiful. Competition for grain has increased its price. Increases in the price and scarcity of fossil fuels, fertilizer, and labor have further escalated the cost of producing grains and forage from croplands.

What this foretells is an increasing trend toward grass-fed cattle. Many animals are being held on the range longer before being fattened on feedlots for market to reduce costs of finishing cattle. This is increasing the use of range forage and is expected to continue.

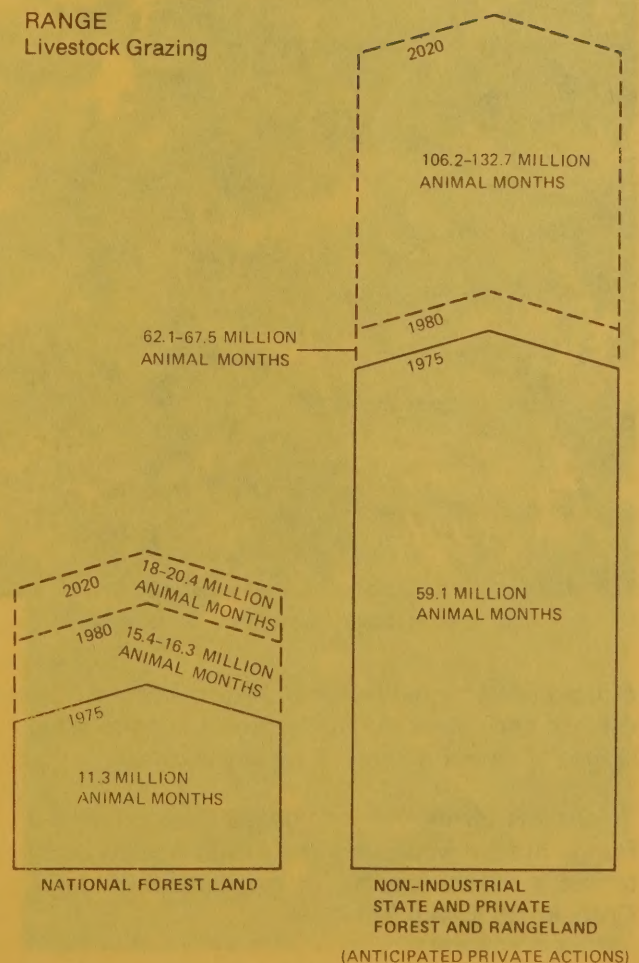
The Recommended Program would establish a steady course toward producing the larger amounts of forage from National Forest ranges and non-Federal forested ranges that are necessary to meet increasing demands for red meat. The program would also improve the efficiency of resource allocation and range condition for other values, such as watershed protection and wildlife. It would provide forage to the extent benefits are commensurate with costs without impairing land productivity.

Research would develop range management strategies to increase the production of red meat in ways that would reduce the impact of livestock grazing on other uses of range and forest land.

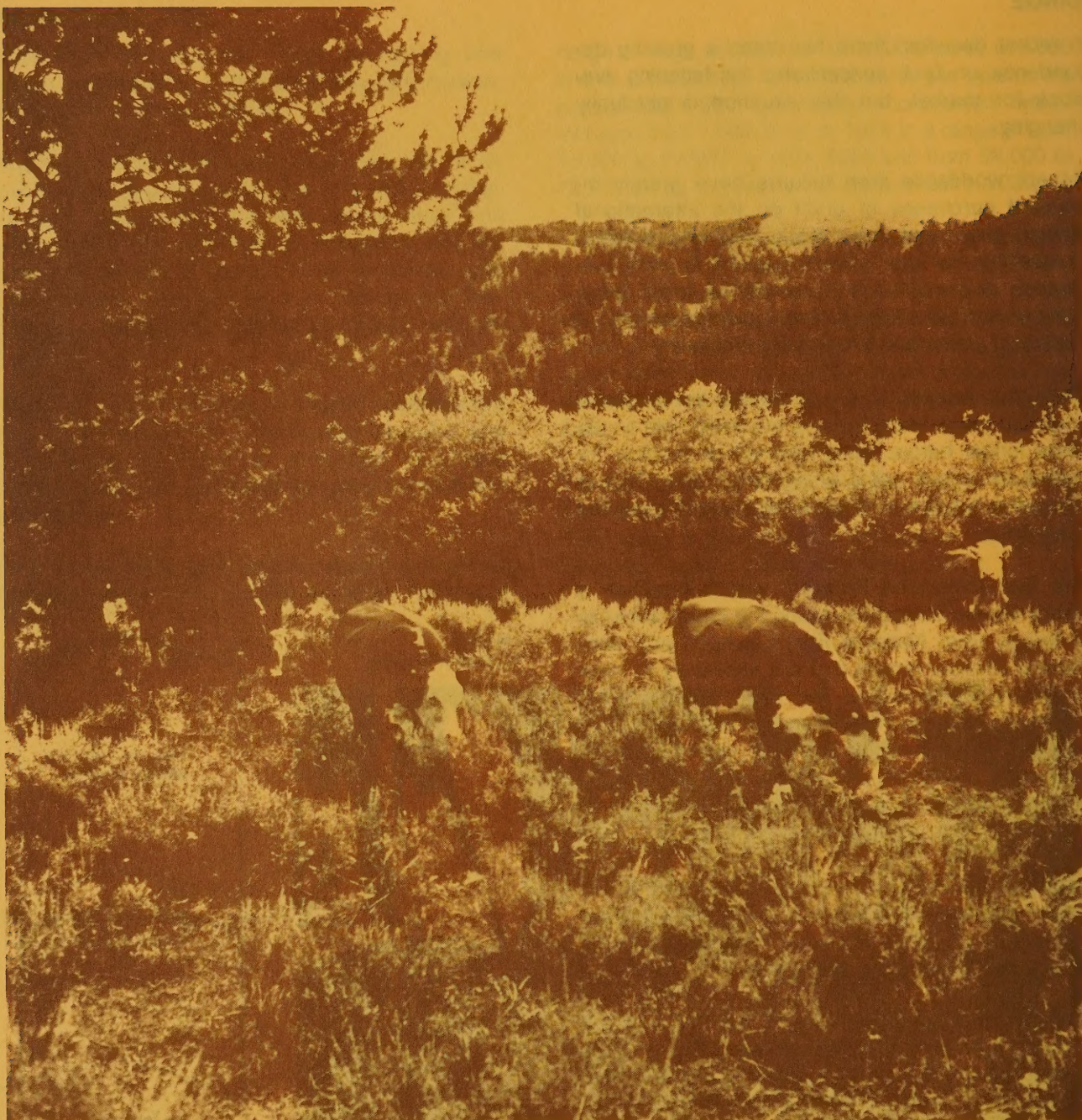
Livestock grazing on National Forest lands would increase from the current annual level of 11.3 million animal-unit-months (AUM's) to a range of from 15.4 to 20.4 million AUM's in 1980 and from 18.0 to 20.4 million AUM's in 2020. Cooperative efforts, involving other interested Federal, State, and local organizations would encourage private landowners to work toward producing the estimated 106.2 to 132.7 million animal-unit-months annually possible from non-Federal forested range in 2011-2020. This increase corresponds with the expected increase in demand for red meat over the same period.

The environmental focus of this goal has an important bearing on its recommendation. The correction

### RANGE Livestock Grazing







Livestock grazing on National Forest lands would increase

F.S.-501095

of unsatisfactory range conditions on National Forest land and improved grazing practices on forested ranges of other ownerships are key activities.

Total costs for the Recommended Program for the Range System would be \$58.4 million in 1980, rising to \$86.9 million annually in the decade 2011-20. Costs in 1975 were \$21.7 million.

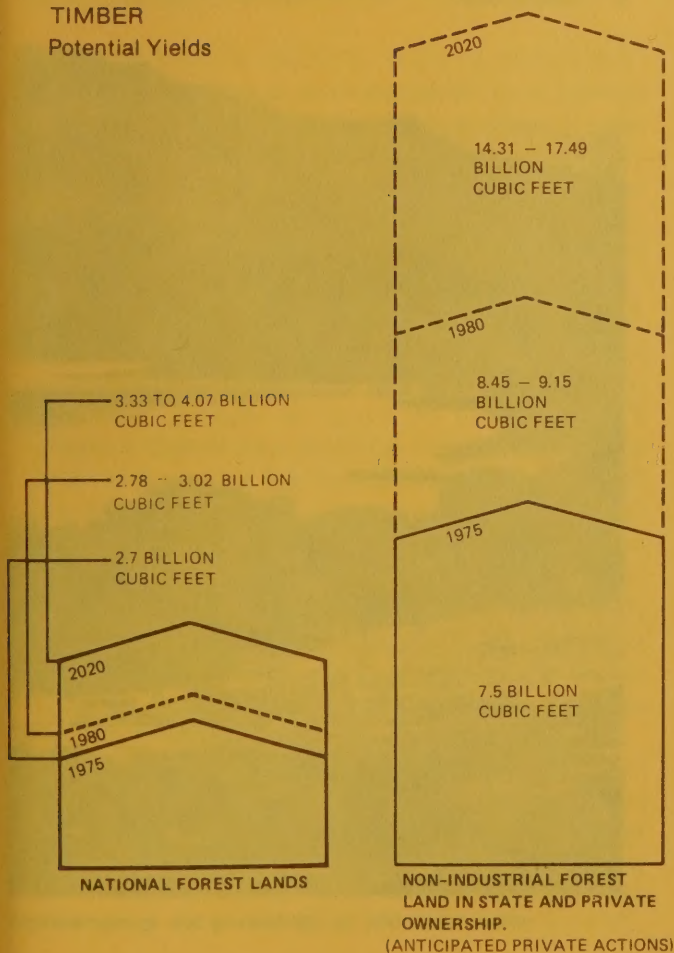


## TIMBER

The Nation's consumption of timber products is increasing, and can be expected to continue to increase through 2020. However, at present management levels, it will not be possible to supply timber in the future to meet the levels of consumption at today's prices. Those products which are available will cost more.

On the positive side, there are numerous opportunities to increase timber supplies through research and improved protection and management practices. Major opportunities include better utilization of timber; improving the rates of timber growth and yield; improving the protection of forests from wild-fire, insects, and diseases; and providing better inventory and evaluation of resources.

### TIMBER Potential Yields



Improved protection and management practices



This is why the goal for Timber in the Recommended Program is to increase supplies and quality to the point where benefits are commensurate with costs.

The recommended goal emphasizes efficient timber management. It suggests those capital investments needed to reap the greatest long-range returns. Concentrating investments on the most productive sites in the National Forest System would increase potential timber yields from 2.7 billion cubic feet in 1975 to a range of 2.8 to 3 billion cubic feet in 1980, and to a range of 3.3 to 4.1 billion cubic feet annually in the decade 2011-20.

But the greatest opportunity to increase timber supplies exists on the 59 percent of commercial forest land that is owned by farmers and other private nonindustrial landowners. The program proposes an emphasis on State and Private Forestry programs that would seek to increase private nonindustrial potential timber yields of 7.5 billion cubic feet in 1975 to 8.5 to 9.2 billion cubic feet in 1980, and 14.3 to 17.5 billion cubic feet annually in the decade 2011-20.

The program would provide incentives for private timberland owners to grow commercial timber, and incentives for improved use of the trees and logs that are harvested. It would decrease the risks of loss from major forest fires, insects, and diseases—particularly in the old-growth timber stands of the West. By the 1990's, it would eliminate the backlog in reforestation of more than 2 million acres of National Forest System land. It would tend to prevent a greater reliance on timber imports and substitute materials.

Total costs for the Recommended Program for the Timber System would be \$940.8 million in 1980, rising to \$1.2 billion annually in the decade 2011-20. Costs in 1975 were \$587.2 million.

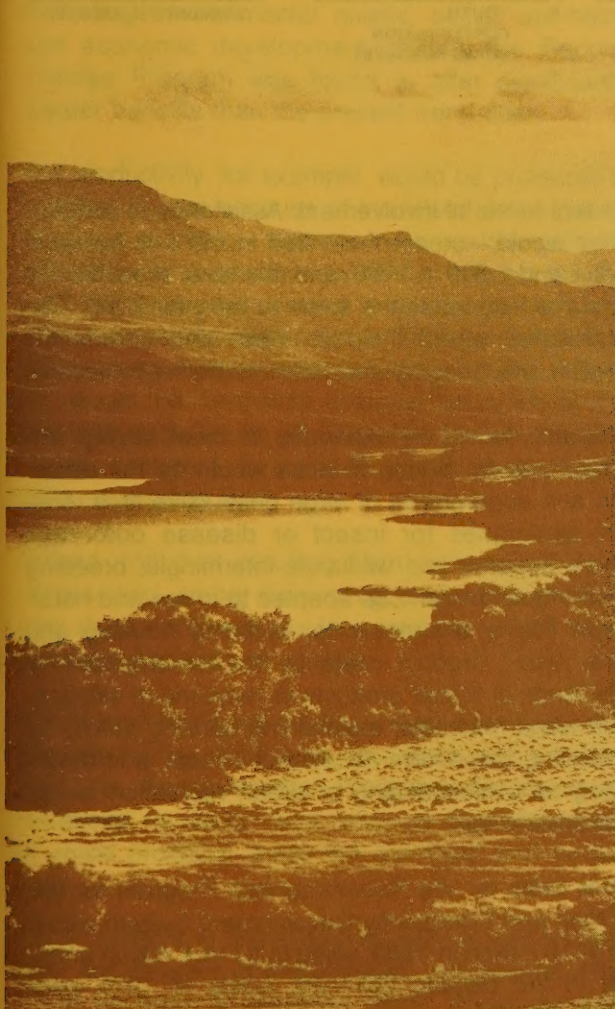


## LAND AND WATER

The Land and Water System is an aggregation of the many basic stewardship activities that must be accomplished on all forest and related range lands to assure that the productivity and quality of the land, water, and ecosystems are kept intact and healthy. This System includes such things as land line location of property boundaries, restoration of disturbed or eroding watersheds, improvement of fire protection and removal of floatable debris blocking water courses or fish passage.

Many of these basic stewardship functions have been slighted or postponed on all land ownerships. Yet, they are essential to the maintenance of productive and healthy ecosystems.

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Improvement of soil productivity, air and water quality

This is why a goal has been selected for the Land and Water System in the Recommended Program which would allow the Forest Service to move toward more fully redeeming its stewardship responsibilities. It would meet minimum air and water quality standards; give emphasis to improvement of soil productivity, air and water quality; while selectively improving, commensurate with benefits, water supply; and meet other land stewardship standards.

The Recommended Program would increase forest and range water yields and improve soil productivity where needed. It would permit control of man-caused erosion on National Forest lands which contribute to water pollution, and it would provide technical assistance and program support to control similar erosion on State and private lands. It would provide a more adequate level of fire protection on 993 million acres of forest and range land and seek to reduce the number of man-caused fires and acres burned.

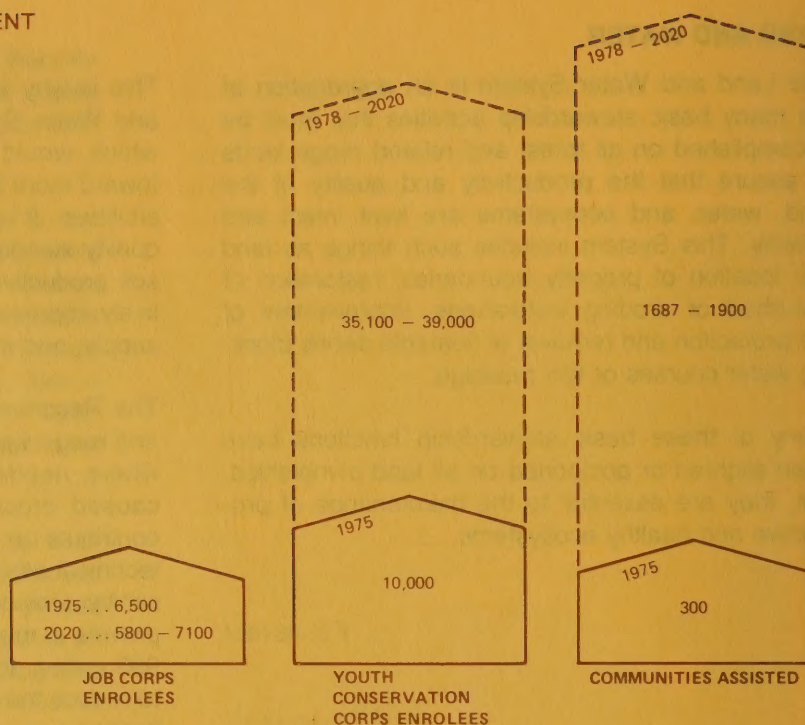
Research would be strengthened to improve knowledge about air, soil, and water resources, as well as solutions to specific problems that obstruct the effective management of these resources on both Federal and non-Federal lands. Important areas of research would include the nature and extent of nonpoint sources of pollution generated by resource management; technologies to reclaim surface-mined areas; new and improved logging practices for fragile soils and steep slopes; and improved efficiency of fire prevention and firefighting operations.

The recommended goal has important impact on other Resource Systems in the Program. It would provide long-term support for the Timber and Range Systems through soil management, land and water rehabilitation, arterial road construction and maintenance, insect and disease and fire management, and fire and general purpose facilities construction and maintenance. The Wilderness and Recreation Systems would benefit from increased levels of land acquisition. Improved soil and water conditions and increased fire protection would enhance the Fish and Wildlife System.

Total costs for the Recommended Program for the Land and Water System would be \$402.4 million in 1980, rising to \$786.4 million annually in the decade 2011-20. Costs in 1975 were \$323.3 million.



## HUMAN AND COMMUNITY DEVELOPMENT



## HUMAN AND COMMUNITY DEVELOPMENT

Through its many activities in rural communities across the Nation, the Forest Service has unique opportunities to help people and communities help themselves. Conservation work can help develop, manage, and protect the Nation's natural resources. The Human and Community Development System provides a focal point for the special efforts of the Forest Service in this connection, serving employment needs and other social ends through natural resource management activities.

The goal chosen would continue Forest Service involvement in this area, and even increase activities in some instances. The programs emphasized are those which are most closely related to natural resource management and development, including conservation education. As stated, it would provide greater emphasis on efforts that complement the activities in other Forest Service resource systems.

The Recommended Program would provide for expansion of the Youth Conservation Corps, increasing from 10,000 youth positions in 1975 to a range of from 35,100 to 39,000 between 1978 and 2020. Forest Service efforts in Job Corps, employment and other manpower programs would continue at

present levels of involvement. Assistance to communities would increase from 300 in 1975 to between 1,824 and 1,900 in 1980, and that level of assistance would remain about the same to the year 2020. This assistance would include urban and community forestry and, possibly, rural community fire protection.

Research would be expanded to meet several important needs. Some of these would be the detection and suppression of large destructive fires; control techniques for insect or disease outbreaks where suburbs and wildlands intermingle; breeding hybrid trees and shrubs adapted to urban and harsh Great Plains environments; reducing housing and other wood product costs by the development of new kinds of timber products or recycling of salvageable wood materials; maintaining housing quality by protecting wood from decay and insects; and developing an understanding of urban recreation needs and preferences.

Total costs for the Recommended Program for the Human and Community Development System would be \$110 million in 1980, rising to \$116.4 million annually in the decade 2011-20. Costs in 1975 were \$57.6 million.



## **ESTIMATED COSTS OF THE RECOMMENDED PROGRAM**

Estimated costs for the Recommended Program (in terms of 1975 constant dollars) range from a low of \$1.8 billion to a high of \$1.9 billion in 1980, and from \$2.5 billion to \$3 billion annually in the decade 2011–20. Comparable costs for the index year 1975 were \$1 billion.

Costs given previously for each of the resource systems were estimated at a "mid-range" level. Thus the total for the costs estimated for each system, also in 1975 constant dollars, are about midway between the "low" and "high" levels of costs given for the entire Recommended Program.

## **ENVIRONMENTAL, SOCIAL, AND ECONOMIC EFFECTS**

In testing environmental quality, social well-being and economic development effects, the Recommended Program was found to offer significantly greater benefits than the present trend does.

Soil productivity, for example, would be protected to a higher degree because of increased emphasis on the Land and Water System, in conjunction with the shift of timber production away from fragile sites and with the moderate increase in wilderness acreage. These same elements of the Recommended Program would improve water quality generally. Esthetics would be favorably affected because of the required high levels of utilization, slash (logging debris) treatment, diversity of vegetation, and restoration of eroding land.

Smoke and dust resulting from increases in road construction, timber harvesting, prescribed burning, and slash treatment would cause some very slight adverse effects on air quality.

Social well-being would be greatly improved over present trends. This high favorable rating results from the Recommended Program's emphasis on dispersed recreation and relatively high availability of wood products, grass-fed red meat and wilderness.

Some dangers to archeological, cultural and historic sites are inherent in the Program, but special care would be taken to minimize them. These dangers would result from development activities providing

greater access to some forest areas and increasing opportunities for vandalism.

The high level of employment and moderately high community stability resulting from the Recommended Program activity would give the Program a high economic development rating. Higher goals of income and income distribution would be served.

In overall direct economic benefits, the Recommended Program ranks higher than any of the eight alternatives from which it was drawn.

Minerals availability would be adversely affected to a slight degree in the long term, primarily because of additions to the Wilderness System. Moderate levels of energy would be required to implement the Program in the long run.

Possible adverse effects on timber production in some areas resulting from the dispersed recreation, wilderness, and wildlife goals would be more than offset by the emphasis on efficient timber management on State and Private forest lands.



## CONCLUSION

Thus, demands for products and services from the Nation's forests and ranges will continue to grow to a point where the present levels of management will not suffice. The 1.6 billion acres of our forest and range land base have the capabilities of meeting the projected needs for products and services generated by increased population and economic factors. But action must begin quickly to match production with potential needs during the next 44 years. This action can be taken at reasonable cost, which will be offset considerably by the income more intensive management of these lands will generate.

The Forest Service can contribute strongly to a national program geared to increasing products and services by intensifying its program efforts so they will yield long-term benefits commensurate with investment costs. The Recommended Renewable Resource Program appears to offer the highest probability of meeting that end.



# A Summary of a Renewable Resource Assessment and a Recommended Renewable Resource Program.

## RECREATION AND WILDERNESS

### Recreation

**Goal A:** Supply *lower than current* trend of outdoor recreation opportunities provided directly through Forest Service programs.

**Goal B:** Maintain *current trend* of supply and mix of outdoor recreation opportunities and services, provided through Forest Service programs.

**Goal C:** Increase supply of outdoor recreation opportunities and services through Forest Service programs that emphasize *dispersed* recreation.

**Goal D:** Increase supply of outdoor recreation facilities and services through Forest Service programs that emphasize *developed* recreation.

**Goal E:** Increase supply of outdoor recreation opportunities and services through Forest Service programs that will serve a *full range* of demands.

### Wilderness

**Goal A:** Provide for *minor increase* in wilderness on National Forest land. Limit recommended increases to a few outstanding areas.

**Goal B:** Provide for a *moderate* increase in wilderness on National Forest land.

**Goal C:** Provide for a *large* increase in wilderness from National Forest land.

## WILDLIFE AND FISH

**Goal A:** Provide for species diversity and wildlife and fish populations attainable at a *low level* of habitat management.

**Goal B:** Provide for species diversity and wildlife and fish populations that can be attained within the *historic trend* of habitat management.

**Goal C:** Provide for greater species diversity and wildlife and fish populations through *large increases* of habitat management.

## RANGE

**Goal A:** Provide forage *within present capacity* of range without impairing land productivity.

**Goal B:** Provide forage at *present levels* without impairing land productivity.

**Goal C:** Provide forage to the extent *benefits are commensurate with costs*, without impairing land productivity.

**Goal D:** Provide *additional forage* to increase proportion of livestock feed from forest and range, without impairing land productivity.

## TIMBER

**Goal A:** Provide a timber supply consistent with *lower than current* efforts in research, assistance, and management.

**Goal B:** Provide timber supplies consistent with *current* policies and recent trends in utilization, research, assistance, and management efforts.

**Goal C:** Increase timber supplies and quality to the point where *benefits are commensurate* with costs.

**Goal D:** Increase quantity and quality of timber supplies to *meet projected increase in demand* at stable relative prices.

## LAND AND WATER

**Goal A:** Meet minimum air and water quality standards. *Maintain current* soil productivity and water supply, and meet other land stewardship standards.

**Goal B:** Meet minimum air and water quality standards. *Selectively improve*, commensurate with benefits produced, air quality, soil productivity, water quality and supply, and meet other land stewardship standards.

**Goal C:** Meet minimum air and water quality standards. *Emphasize improvement* of soil productivity, air and water quality, and water supply, meet or exceed other land stewardship standards.

## HUMAN & COMMUNITY DEVELOPMENT

**Goal A:** *Reduce present levels* of involvement in human and community development efforts that complement the activities in other Forest Service resource systems.

**Goal B:** *Maintain present levels* of involvement in human and community development efforts that complement the activities in other Forest Service resource systems.

**Goal C:** *Emphasize involvement* in human and community development efforts that complement the activities in other Forest Service resource systems.



## Appendix H

(This is a condensed summary of key primary outputs, inputs, costs, and personnel needs for fiscal years 1977–1980, and on an average annual basis for each following decade through the year 2020.)

### Recommended Program Direction

	Recom- mended Program Range	System <sup>1</sup>	Unit of Measure	Index Year 1975	Outputs and Costs by Time Period									
					Annual					Average Annual <sup>3</sup>				
					1977	1978	1979	1980	1981– 1990	1991– 2000	2001– 2010	2011– 2020		
Key Primary and Intermediate Outputs														
Recreation Use—Developed	High	R&W	Mil. RVD	72.8	76.3	73.3	79.9	81.0	88.1	97.4	108.1	122.4		
	Low	R&W	Mil. RVD	—	73.3	73.5	73.8	74.8	79.7	84.6	90.2	100.1		
Recreation Use—Dispersed	High	R&W	Mil. RVD	125.0	134.7	137.8	139.8	140.0	160.9	181.0	201.1	220.0		
	Low	R&W	Mil. RVD	—	128.0	129.5	130.0	128.3	144.8	156.8	166.9	176.0		
Wilderness—Maintained	High	R&W	Mil. Acres	12.0	15.2	15.2	15.2	15.2	23	25	30	30		
	Low	R&W	Mil. Acres	—	15.2	15.2	15.2	15.2	21	23	25	25		
Wildlife Habitat Improvement	High	W&F	Thous. Acres	175	500	667	834	1,040	1,455	1,850	2,297	2,744		
	Low	W&F	Thous. Acres	—	475	627	776	957	1,310	1,609	1,906	2,195		
Fish Habitat Improvement	High	W&F	Thous. Acres	4	13	15	18	21	35	50	61	72		
	Low	W&F	Thous. Acres	—	12	14	17	19	32	44	51	58		
Livestock Grazing—NFS	High	R	Mil. AUM's	11.3	11.4	12.9	14.6	16.3	18.9	20.4	20.4	20.4		
	Low	R	Mil. AUM's	—	10.8	12.1	13.6	15.4 <sup>4</sup>	17.2	17.7	16.9	18.0		
Livestock Grazing—S&PF	High	R	Mil. AUM's	59.1	60.1	61.5	63.0	67.5	89.0	132.7	132.7	132.7		
	Low	R	Mil. AUM's	—	57.1	57.8	52.3	62.1	80.1	115.4	110.1	106.2		
Potential Timber Yield—NFS	High	T	Bill. Cu. Ft.	2.7	2.75	2.88	2.91	3.02	3.26	3.53	3.82	4.07		
	Low	T	Bill. Cu. Ft.	—	2.65	2.72	2.69	2.78	2.95	3.07	3.19	3.33		
Timber Sale Offering—NFS <sup>5</sup>	High	T	Bill. Cu. Ft.	2.4	2.08	2.92	3.05	2.91	3.26	3.53	3.82	4.07		
	Low	T	Bill. Cu. Ft.	—	2.08	2.76	2.83	2.69	2.95	3.07	3.19	3.33		
Timber Util. Improv.—All Ownership	High	T	Pct. Increase	5	5.10	5.15	5.20	6.24	9.45	11.77	13.08	14.30		
	Low	T	Pct. Increase	—	4.90	4.85	4.80	5.76	8.55	10.23	10.92	11.70		
Potential Timber Yield—Non- industrial Private Lands	High	T	Bill. Cu. Ft.	7.5	7.7	8.5	8.8	9.15	11.45	13.70	15.91	17.49		
	Low	T	Bill. Cu. Ft.	—	7.5	7.7	8.0	8.45	10.36	11.90	13.29	14.31		
Water Quality (Min. Standards)	High	L&W	Thous. Ac. Ft.	1,373	1,402.5	1,419.3	1,436.2	1,440.4	1,512	1,549.4	1,578.3	1,592.8		
	Low	L&W	Thous. Ac. Ft.	—	1,347.5	1,336.7	1,325.8	1,329.6	1,368	1,346.6	1,317.7	1,433.5		
Fire Prevention—NFS	High	L&W	No. Man-Caused Fires	6,990	6,834	6,592	6,344	6,240	6,195	6,313	6,322	6,270		
	Low	L&W	No. Man-Caused Fires	—	6,566	6,209	5,856	5,760	5,605	5,487	5,278	5,130		
Fire Suppression—S&PF	High	L&W	No. Per Mil. Ac. Prot.	216	231	219	223	222	220	224	227	228		
	Low	L&W	No. Per Mil. Ac. Prot.	—	221	209	205	204	200	194	189	186		
Lands Acquired and Exchanged	High	L&W	Thous. Acres	—	126.5	121.0	244.4	304.2	423.2	506.1	101.4	113.3		
	Low	L&W	Thous. Acres	—	121.5	114.0	225.6	208.8	382.8	439.9	84.6	102.0		



Transportation System—Roads (appropriated funds)	High	All	Miles Constr.-Reconstr.	—	746	1,431	2,297	2,777	4,410	5,255	5,600	5,722
	Low	All	Miles Constr.-Reconstr.	—	716	1,347	2,197	2,563	3,990	4,567	4,726	4,682
Transportation System—Roads (timber purchaser)	High	All	Miles Constr.-Reconstr.	—	9,801	9,003	8,188	7,338	7,411	7,928	10,777	10,885
	Low	All	Miles Constr.-Reconstr.	—	9,417	8,479	5,558	6,774	6,705	6,890	8,997	8,906
Youth Conservation Corps	High	H&CD	Thous. Persons Involved	10.0	0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
	Low	H&CD	Thous. Persons Involved	—	0	39.0	39.0	37.0	37.0	36.2	35.4	35.1
Community Improvement	High	H&CD	Comm. Assisted	300	0	1,900	1,900	1,900	1,900	1,900	1,900	1,900
	Low	H&CD	Comm. Assisted	—	0	1,687	1,976	1,824	1,805	1,767	1,729	1,710
Receipts to Treasury	High	All	Mil. Dol.	581.8	535.6	609.3	689.4	765.4	844.7	967	1,102.4	1,225.2
	Low	All	Mil. Dol.	—	514.6	573.9	636.4	706.6	764.3	840.3	920.4	1,002.4
Inputs and Costs <sup>2</sup>												
Personnel Requirements	High	All	Thous. Person/Years	—	45	50	54	58	55	56	62	66
	Low	All	Thous. Person/Years	—	44	48	50	54	50	50	64	57
Operational Costs	High	All	Mil. Dol.	—	645.8	971.2	1,046.3	1,082.4	1,264.7	1,494.1	1,668.6	1,806.2
	Low	All	Mil. Dol.	—	—	914.6	965.9	999.2	1,144.3	1,298.6	1,393.0	1,477.8
Capital Investments	High	All	Mil. Dol.	—	383.7	592.1	665.8	721.0	777.3	984.6	1,126.6	1,210.2
	Low	All	Mil. Dol.	—	—	557.7	614.6	665.6	703.3	855.8	940.6	990.2
Backlog	High	All	Mil. Dol.	—	30.3	54.7	73.9	99.2	98.2	100.8	0	0
	Low	All	Mil. Dol.	—	—	51.5	68.2	91.6	88.8	87.6	0	0
Total Costs <sup>4</sup>	High	All	Mil. Dol.	1,003.8	1,059.8	1,616.5	1,784.4	1,902.7	2,140.3	2,579.6	2,795.2	3,016.6
	Low	All	Mil. Dol.	—	—	1,522.3	1,647.2	1,756.3	1,936.5	2,242.0	2,333.6	2,488.2
National Forest System Costs	High	All	Mil. Dol.	—	924.8	1,342.6	1,513.3	1,617.5	1,802.6	2,176.3	2,326.0	2,488.9
	Low	All	Mil. Dol.	—	—	1,264.4	1,396.9	1,493.1	1,630.9	1,891.5	1,941.8	2,036.3
Research Costs	High	All	Mil. Dol.	—	85.0	117.2	121.8	116.1	135.1	152.5	168.7	183.2
	Low	All	Mil. Dol.	—	—	110.4	112.4	107.1	122.3	132.5	140.9	149.8
State and Private Forestry Costs	High	All	Mil. Dol.	—	50.0	156.7	149.5	169.0	202.1	250.8	300.5	344.4
	Low	All	Mil. Dol.	—	—	147.5	138.0	156.0	182.9	218.0	250.9	281.8

<sup>1</sup> R&W—Recreation and Wilderness System; W&F—Wildlife and Fish System; R—Range System; T—Timber System; L&W—Land and Water System;

H&CD—Human and Community Development.

<sup>2</sup> Data may not add to totals because of rounding.

<sup>3</sup> Average annual outputs and inputs for the decade.

<sup>4</sup> Total Costs do not include the following Program Budget items: Payments to Bureau of Employment Compensation; Coop. Work (Trust Fund); ASCS Expenses (Alloc.); O&C Grant Land (Alloc.); and Federal Highway Administration Trust (Alloc.)

<sup>5</sup> Conversion rate for N.F.S. Timber Sale offerings is 5 Bd. Ft. per cubic foot. The output Timber Sale offerings for '77 is 10.4 Bil. Bd. Ft.



Statewide Planning Goals developed by the State of Oregon Land Conservation and Development Commission are listed below. Guidelines, or suggested directions, to implement the goals were also developed but are not shown here.

1. Citizen Involvement: To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

The governing body charged with preparing and adopting a comprehensive plan shall adopt and publicize a program for citizen involvement that clearly defines the procedures by which the general public will be involved in the on-going land-use planning process.

The citizen involvement program shall be appropriate to the scale of the planning effort. The program shall provide for continuity of citizen participation and of information that enables citizens to identify and comprehend the issues.

Federal, state and regional agencies and special purpose districts shall coordinate their planning efforts with the affected governing bodies and make use of existing local citizen involvement program established by counties and cities.

The citizen involvement program shall incorporate the following components: 1) citizen involvement; 2) communication; 3) citizen influence; 4) technical information; 5) feedback mechanisms; 6) financial support.

2. Land Use Planning: Part I - Planning: to establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.

City, county, state and federal agency and special district plans and actions related to land use shall be consistent with the comprehensive plans of cities and counties and regional plans adopted under ORS 197.705 through 197.795.

All land use plans shall include identification of issues and problems, inventories and other factual information for each applicable state-wide planning goal, evaluation of alternative courses of action and ultimate policy choices, taking into consideration social, economic, energy and environmental needs. The required information shall be contained in the plan document or in supporting documents. The plans, supporting documents and implementation ordinances shall be filed in a public office or other place easily accessible to the public. The plans shall be the basis for specific implementation measures. These measures shall be consistent with and adequate to carry out the plans. Each plan and related implementation measure shall be coordinated with the plans of affected governmental units.

All land use plans and implementation ordinances shall be adopted by the governing body after public hearing and shall be reviewed and, as needed, revised on a periodic cycle to take into account changing public policies and circumstances, in accord with a schedule set forth in the plan. Opportunities shall be provided for review and comment by citizens and affected governmental units during preparation, review and revision of plans and implementation ordinances.



Part II Exceptions: When, during the application of the statewide goals to plans, it appears that it is not possible to apply the appropriate goal to specific properties or situations, then each proposed exception to a goal shall be set forth during the plan preparation phases and also specifically noted in the notices of public hearing. The notices of hearing shall summarize the issues in an understandable and meaningful manner.

If the exception to the goal is adopted, then the compelling reasons and facts for that conclusion shall be completely set forth in the plan and shall include: (a) Why these other uses should be provided for; (b) What alternative locations within the area could be used for the proposed uses; (c) What are the long term environmental, economic, social and energy consequences to the locality, the region or the state from not applying the goal or permitting the alternative use; (d) A finding that the proposed uses will be compatible with other adjacent uses.

Part III - Use Of Guidelines: Governmental units shall review the guidelines set forth for the goals and either utilize the guidelines or develop alternative means that will achieve the goals. All land use plans shall state how the guidelines or alternative means utilized achieve the goals.

3. Agricultural Lands: To preserve and maintain agricultural lands. Agriculture lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space. These lands shall be inventoried and preserved by adopting exclusive farm use zones pursuant to ORS Chapter 215. Such minimum lot sizes as are utilized for any farm use zones shall be appropriate for the continuation of the existing commercial agricultural enterprise within the area. Conversion of rural agricultural land to urbanizable land shall be based upon consideration of the following factors: 1) environmental, energy, social and economic consequences; 2) demonstrated need consistent with LCDC goals; 3) unavailability of an alternative suitable location for the requested use; 4) compatibility of the proposed use with related agricultural land; and 5) the retention of Class I, II, III and IV soils in farm use. A governing body proposing to convert rural agricultural land to urbanizable land shall follow the procedures and requirements set forth in the Land Use Planning goal (Goal 2) for goal exceptions.

4. Forest Lands: To conserve forest lands for forest uses.

Forest land shall be retained for the production of wood fibre and other forest uses. Lands suitable for forest uses shall be inventoried and designated as forest lands. Existing forest land uses shall be protected unless proposed changes are in conformance with the comprehensive plan.

In the process of designating forest lands, comprehensive plans shall include the determination and mapping of forest site classes according to the United States Forest Service manual "Field Instructions for Integrated Forest Survey and Timber Management Inventories - Oregon, Washington and California, 1974."

5. Open Spaces, Scenic and Historic Areas, and Natural Resources: To conserve open space and protect natural and scenic resources.



Programs shall be provided that will: 1) insure open space, 2) protect scenic and historic areas and natural resources for future generations, and 3) promote healthy and visually attractive environments in harmony with the natural landscape character. The location, quality and quantity of the following resources shall be inventoried:

- a. Land needed or desirable for open space;
- b. Mineral and aggregate resources;
- c. Energy sources;
- d. Fish and wildlife areas and habitats;
- e. Ecologically and scientifically significant natural areas, including desert areas;
- f. Outstanding scenic views and sites;
- g. Water areas, wetlands, watersheds and groundwater resources;
- h. Wilderness areas;
- i. Historic areas, sites, structures and objects;
- j. Cultural areas;
- k. Potential and approved Oregon recreation trails;
- l. Potential and approved federal wild and scenic waterways and state scenic waterways.

Where no conflicting uses for such resources have been identified, such resources shall be managed so as to preserve their original character. Where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal.

6. Air, Water and Land Resources Quality: To maintain and improve the quality of the air, water and land resources of the state.

All waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards. With respect to the air, water and land resources of the applicable air sheds and river basins described or included in state environmental quality statutes, rules, standards and implementation plan, such discharges shall not 1) exceed the carrying capacity of such resources, considering long range needs; 2) degrade such resources; or 3) threaten the availability of such resources.

7. Areas Subject to Natural Disasters and Hazards: To protect life and property from natural disasters and hazards.

Developments subject to damage or that could result in loss of life shall not be planned nor located in known areas of natural disasters and hazards without appropriate safeguards. Plans shall be based on an inventory of known areas of natural disaster and hazard.

8. Recreational Needs: To satisfy the recreational needs of the citizens of the state and visitors.

The requirements for meeting such needs, now and in the future shall be planned for by governmental agencies having responsibility for recreation areas, facilities and opportunities: 1) in coordination with private enterprise, 2) in appropriate proportions and 3) in such quantity, quality and location as is consistent with the availability of the resources to meet such requirements. State and Federal agency recreation plans shall be coordinated with local and regional recreational needs and plans.



9. Economy of the State: To diversify and improve the economy of the state.

Both state and federal economic plans and policies shall be coordinated by the state with local and regional needs. Plans and policies shall contribute to a stable and healthy economy in all regions of the state. Plans shall be based on inventories of areas suitable for increased economic growth and activity after taking into consideration the health of the current economic base; materials and energy availability; labor market factors; transportation; current market forces; availability of renewable and non-renewable resources; availability of land; and pollution control requirements.

Economic growth and activity in accordance with such plans shall be encouraged in areas that have underutilized human and natural resource capabilities and want increased growth and activity. Alternative sites suitable for economic growth and expansion shall be designated in such plans.

10. Housing: To provide for the housing needs of citizens of the state.

Buildable lands for residential use shall be inventoried and plans shall encourage the availability of adequate numbers of housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density.

11. Public Facilities and Services: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Urban and rural development shall be guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to the needs and requirements of the urban, urbanizable and rural areas to be served. A provision for key facilities shall be included in each plan. To meet current and long-range needs, a provision for solid waste disposal sites, including sites for inert waste, shall be included in each plan.

12. Transportation: to provide and encourage a safe, convenient and economic transportation system.

A transportation plan shall 1) consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian; 2) be based upon an inventory of local, regional and state transportation needs; 3) consider the differences in social consequences that would result from utilizing differing combinations of transportation modes; 4) avoid principal reliance upon any one mode of transportation; 5) minimize adverse social, economic and environmental impacts and costs; 6) conserve energy; 7) meet the needs of the transportation services; 8) facilitate the flow of goods and services so as to strengthen the local and regional comprehensive land use plans. Each plan shall include a provision for transportation as a key facility.

13. Energy Conservation: to conserve energy.

Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.



14. Urbanization: To provide for an orderly and efficient transition from rural to urban land use.

Urban growth boundaries shall be established to identify and separate urbanizable land from rural land.

Establishment and change of the boundaries shall be based upon consideration of the following factors:

- 1) Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals;
- 2) Need for housing, employment opportunities, and livability;
- 3) Orderly and economic provision for public facilities and services;
- 4) Maximum efficiency of land uses within and on the fringe of the existing urban area;
- 5) Environmental, energy, economic and social consequences;
- 6) Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,
- 7) Compatibility of the proposed urban uses with nearby agricultural activities.

The results of the above considerations shall be included in the comprehensive plan. In the case of a change of a boundary, a governing body proposing such change in the boundary separating urbanizable land from rural land, shall follow the procedures and requirements as set forth in the Land Use Planning goals (Goal 2) for goal exceptions.

Any urban growth boundary established prior to January 1, 1975 which includes rural lands that have not been built upon shall be reviewed by the governing body, utilizing the same factors applicable to the establishment or change of urban growth boundaries.

Establishment and change of the boundaries shall be a cooperative process between a city and the county or counties that surround it.

Land within the boundaries separating urbanizable land from rural land shall be considered available over time for urban uses. Conversion of urbanizable land to urban uses shall be based on consideration of:

- 1) Orderly, economic provision for public facilities and services;
- 2) Availability of sufficient land for the various uses to insure choices in the market place;
- 3) LCDC goals; and,
- 4) Encouragement of development within urban areas before conversion of urbanizable areas.

15. Willamette Greenway: to protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreation qualities of lands along the Willamette River as the Willamette River Greenway.



16. Estuarine Resources: to recognize and protect the unique environmental, economic and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.

Comprehensive management programs to achieve the objectives shall be developed by appropriate local, state, and federal agencies for all estuaries.

To assure diversity among the estuaries of the State, by June 15, 1977, LCDC with the cooperation and participation of local governments, special districts, and state and federal agencies shall classify the Oregon estuaries to specify the most intensive level of development or alteration which may be allowed to occur within each estuary. After completion for all estuaries of the inventories and initial planning efforts, including identification of needs and potential conflicts among needs and goals and upon request of any coastal jurisdiction, the Commission will review the overall Oregon Estuary Classification.

Comprehensive plans and activities for each estuary shall provide for appropriate uses (including preservation) with as much diversity as is consistent with the overall Oregon Estuary Classification, as well as with the biological, economic, recreational, and aesthetic benefits of the estuary. Estuary plans and activities shall protect the estuarine ecosystem, including its natural biological productivity, habitat, diversity, unique features and water quality. Dredge, fill, or other reduction or degradation of these natural values by man shall be allowed only:

- 1) if required for navigation or other water-dependent uses that require an estuarine location; and
- 2) if a public need is demonstrated; and
- 3) if no alternative upland locations exist; and
- 4) if adverse impacts are minimized as much as feasible.

17. Coastal Shorelands: To conserve, protect, where appropriate develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters; and

To reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.

Programs to achieve these objectives shall be developed by local, state, and federal agencies having jurisdiction over coastal shorelands.

Land use plans, implementing actions and permit reviews shall include consideration of the critical relationships between coastal shorelands and resources of coastal waters, and of the geologic and hydrologic hazards associated with coastal shorelands. Local, state and federal agencies shall within the limit of their authorities maintain the diverse environmental, economic, and social values of coastal shorelands and water quality in coastal waters. Within those limits, they shall also minimize man-induced sedimentation in estuaries, nearshore ocean waters, and coastal lakes.



18. Beaches and Dunes: To conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of coastal beach and dune areas; and

To reduce the hazard to human life and property from natural or man-induced actions associated with these areas.

Coastal comprehensive plans and implementing actions shall provide for diverse and appropriate use of beach and dune areas consistent with their ecological, recreational, aesthetic, water resource, and economic values, and consistent with natural limitations of beaches, dunes and dune vegetation for development.

19. Ocean Resources: To conserve the long-term values, benefits and natural resources of the nearshore ocean and the continental shelf.

All local, state, and federal plans, policies, projects, and activities which affect the territorial sea shall be developed, managed and conducted to maintain, and where appropriate, enhance and restore, the long-term benefits derived from the nearshore oceanic resources of Oregon. Since renewable ocean resources and uses, such as food production, water quality, navigation, recreation, and aesthetic enjoyment, will provide greater long-term benefits than will non-renewable resources, such plans and activities shall give clear priority to the proper management and protection of renewable resources.



UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICESiskiyou National Forest  
P. O. Box 440, Grants Pass, OR 97526

2360

June 28, 1976



Mr. David G. Talbot  
State Historic Preservation Officer  
300 State Highway Building  
Salem, OR 97310

Dear Mr. Talbot:

We need to know if you have any historic or prehistoric sites listed for the Chetco-Grayback Planning Unit in Southwestern Oregon. Please examine the enclosed map and respond by marking the appropriate box(es) below, signing and returning this form and map to us.

Thank you.

James E. Slichter  
Cultural Resource Coordinator  
Chetco-Grayback Planning Unit  
Siskiyou National Forest

Enclosure: Project Map

For SHPO Use Only:

A check of our files on July 26 shows the following for  
(date)  
project area:

Data:

- ☒ No (or incomplete) records for that area. See "Recommendations".  
☐ No known sites in the project area. See "Recommendations".  
☐ Historic/Architectural sites exist in the project area. See enclosed list and map.



\_\_\_\_ Aboriginal/archaeological sites exist in the project area.  
see enclosed list and map.

\_\_\_\_ Sites eligible for or included on the National Register of  
Historic Places exist in or adjacent to the project area. See  
enclosed list and map.

Recommendations:

X Further investigation to locate/evaluate sites is recommended  
for the project area.

\_\_\_\_ No further investigation is recommended at this time.

\_\_\_\_ Contact for further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Comments:

Sites have been "unofficially reported  
for this area. No professional surveys  
of cultural resources have been carried  
out however. Since the area is  
virtually unknown archeologically, all sites  
would be important.

Edward T. Long  
(name)  
Sta State Historic Preservation Officer  
State of OREGON



## DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 2390

SACRAMENTO 95811

(916) 445-8006



March 1, 1977

Mr. James E. Stichter  
Cultural Resource Coordinator  
U. S. Forest Service  
Siskiyou National Forest  
P. O. Box 440  
Grants Pass, OR 97526

Dear Mr. Stichter:

We have received your letter regarding the Chetco-Grayback Planning Unit which has a portion located in Northern California. As staff for the State Historic Preservation Officer, we have determined that there are no State Historic Landmarks, State Points of Historical Interest, or sites on the National Register of Historic Places in the immediate area of the proposed project.

Although there are no registered State or Federal historical sites, you should be aware that unrecorded historic values may exist. We suggest that consideration be given to identifying and safeguarding any potential historical and architectural resources which may not be presently recorded on our landmark registers. In this regard you may wish to contact the Del Norte County Historical Society, 710 H Street, Crescent City, California 95531.

We have no records of historic or prehistoric sites within the boundary of the proposed planning unit's northern California portion. However, a preliminary archeological field reconnaissance should be conducted. A professional archeologist should also be consulted if any artifacts are discovered. For implementation regarding archeological site records, you should contact Dr. David A. Fredrickson, California State College, Sonoma, Rohnert Park, California 94928, telephone number (707) 664-2381.

In compliance with Executive Order 11593, "Federal Agencies must submit proposals for the transfer, sale, demolition, or substantial alteration of federally-owned property eligible for inclusion in the National Register to the Advisory Council for review and comment." Procedures for compliance with this Executive Order are outlined in the February 19, 1974 issue of the Federal Register.

Please feel free to contact us should you require additional assistance.

Sincerely,

Dr. Knox Mellon  
Historic Preservation Coordinator

F-2/2

cc: Dr. David A. Fredrickson  
California State College, Sonoma  
Rohnert Park, CA 94928



UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

SISKIYOU NATIONAL FOREST  
Post Office Box 440  
Grants Pass, Oregon 97526

IN REPLY REFER TO  
2360  
August 9, 1978

Mr. David G. Talbot  
State Historic Preservation Officer  
300 State Highway Building  
Salem, OR 97310

Dear Mr. Talbot:

We are preparing the Chetco-Grayback Land Management Plan on the Siskiyou National Forest. We need to update our listings of the historic or prehistoric sites. Please examine the enclosed map and respond by marking the appropriate box(s) below, sign and return this form to us.

Sincerely,

*James E. Stichter*  
JAMES E. STICHTER  
Cultural Resource Coordinator

Enclosures

For SHPO Use Only:

A check of our files on 30 August shows the following  
(date)  
for your project area:

Data:

☒ No (or incomplete) records for that area. See "Recommendations".

☐ No known sites in the project area. See recommendations".

☐ Historic/Architectural sites exist in the project area. See enclosed list and map.

Comments: No additional prehistoric  
or historic sites have been recorded  
since previous request for  
information on 28 June 1976.

*David G. Talbot*  
State Historic Preservation  
Officer, State of Oregon





CHETCO-GRAYBACK PLANNING UNIT  
FOREST SERVICE DETERMINATION OF EFFECT

The proposed project described in the accompanying text and graphic material has been measured against the "criteria of effect" listed in 36 CFR 800.8 and 800.9 to determine the nature of effect, if any, upon properties determined eligible for or included on the National Register of Historic Places.

☒ We have determined that the proposed project will have "no effect" on any listed or eligible cultural resources. We will retain documentation of this determination and proceed with project implementation as proposed if you do not respond within 10 days.

☐ We have determined that the proposed project will have "no adverse effect" on any listed or eligible cultural resources. We will document this determination to the Advisory Council on Historic Preservation and proceed with project implementation as proposed if you do not respond within 10 days.

☐ We have determined that the proposed project will have "adverse effect" on cultural resource(s) listed on or eligible for the National Register of Historic Places. A description of each affected resource, and a plan to mitigate anticipated adverse effects are attached. Please advise us of your opinion within 10 days so that we may proceed with development of a preliminary case report.

Attachments:

- ☒ Project description
- ☐ Description of listed or eligible properties
- ☐ Plan for mitigating adverse effects
- ☒ SHPO Letter
- ☒ Map and Proposed Historical Section for Chetco-Grayback Draft

FOREST SERVICE

by

title Acting Regional Forester

date June 14, 1977

SHPO use:

- ☒ concur
- ☐ do not concur
- (see enclosure)

SHPO

by

title State Historic Preservation Officer

date June 22, 1977



## APPENDIX K

### ANALYSIS OF THE PUBLIC RESPONSE TO THE SIX ALTERNATIVES PRESENTED IN THE "ALTERNATIVES BROCHURE" ON THE CHETCO-GRAYBACK PLANNING UNIT

#### Definitions Used in the Analysis

1. Preference Groups:
  - a) Preservation-Oriented - A respondent who prefers Alternative A.
  - b) Development-Oriented - A respondent who prefers Alternative F most.
  - c) Compromise-Oriented and Others - A respondent who prefers one or more of Alternatives B, C, D, or E most. A respondent expressing an opinion or respondent offering his/her own alternative.
2. Type of Input:
  - a) Form letter - A formally drawn-up request addressed to the Siskiyou National Forest soliciting consideration of an alternative.
  - b) Personal Letter - A letter by an individual, organization, or agency.
3. Who Responded:
  - a) Individual - A person.
  - b) Public agency - Any official local, State or Federal government body.
  - c) Private Organization - Any nongovernment body of citizens, companies, groups, etc.
4. Residence of Respondent: (mutually exclusive)
  - a) Local - Respondent resides within approximately 30 air-miles of the Planning Unit perimeter. Includes the following cities and towns: Gold beach; Brookings; Smith River; Cave Junction; Crescent City; Grants Pass; and other places within the area.
  - b) Urban - Respondent resides within an Oregon city with a population of at least 10,000 or respondent resides within 5 air-miles of the perimeters of these cities.
  - c) Rural - Respondent resides within Oregon and in areas not within the definition of either "Local" or "Urban".
  - d) Outside Oregon - Respondent resides outside Oregon except for those in Smith River and Crescent City, California is in the "local" area.
  - e) Not Given



## RESPONSE BY ALTERNATIVE

Public Opinion of Alternative A presented in the Alternatives Brochure

### Reasons Given in Support of Opinions Expressed

	<u># of Times Suggested</u>
Need Balanced allocation of resources under Multiple use concept (wildlife, water quality, fish habitat).	9
Study Area is predominantly critical soil, low timber volume and poor growing potential	15
We support the proposed Hoover Gulch RNA	5
Protect future resources	9
Cost of Timber Management out weighs benefits	7
Has unique geologic history, diversity of plant life, micro-climate, and soil types	7
Study Area before land use decision	3
Year around recreation and location will protect area from over use.	1
Inadequate attention to Watershed Management and recreational values around Oregon Caves	1
Backcountry is to valuable as watershed to allow anything but recreation	3
No mention of threatened and endangered species	1
Alternative has merit, flexibility and open mindedness	1
Miners have already damaged Kalmiopsis	1
Too few wilderness areas in Oregon	4
False economy to accept a certain amount of damage to land	1
Need be no conflict between producing timber and preserving land	2
High quality of solitude offered by Kalmiopsis area	1
Fear that all lands put in Coordinated Resource Management will be cut	3



Modifications Proposed by "A" Proponents:

	<u># of Times Suggested</u>
Area south of Kalmiopsis should be Study Area as the Backcountry in Alternative 'E', add Fall Creek, and Lightning Creek to Backcountry	3
Area studied as one unit	13
Close Chetco Pass to off-road-vehicles	11
Fisheries protection for Dunn Creek and East Fork Illinois River	20
Allocate old-growth units (specifically Squaw Mountain and Hope 80-01 and 80-02)	10
Mt. Emily should be Wilderness Study	9
Watershed protection area east of present Wilderness and north to Squaw Mountain	9
Lookout Mountain should be Wilderness Study	7
Add Fall Creek to Wilderness Study	6
Include alternative based on natural state	6
Buckskin sale should be rehabilitated	7
Need more watershed protection on rivers, streams, and gullies	4
Add West Fork Illinois to Wilderness Study	1
Upper Illinois should have no further roading	4
No herbicide spraying within Illinois River watershed	3
Rehabilitate Eagle Mountain Area and include as Wilderness Study	6
Timber should be removed from allowable cut in Backcountry Areas	1
Squaw Mountain should be included as Wilderness	4
Eliminate Mt. Emily from Alternative A	2
Include headwaters of Fiddler Gulch as Roadless Area	1
Include Snow Camp Area as Wilderness Study	1
Backcountry is Roadless Management	1
Buckskin Peak Road used as access corridor to Wilderness	2
Roadless Backcountry designation for Emily Creek	1



Roadless Backcountry designation for Lightning Creek	1
Planning should reflect Josephine County planning for Takilma Area	1
Protect South Kalm Area from off-road vehicles traffic	2
Move gate from Babyfoot to Onion Camp	2
Khoery Creek as Class II	1



Alt.	Reasons Given in Support of Opinions Expressed	# of Times Suggested
Other	Transportation planning should be done on all drainages before entry	5
Other	Should complete Wilderness Study of South Kalmiopsis Roadless Areas before decision is reached.	1
Other	Growing potential and low existing volume in area east of Kalmiopsis	2
B	Not using timber now will assure us of timber later on	1
B	Timber volume low and 75% of soil too critical for logging	1
B	The mining areas are not that big	1
E	This type development recognizes productivity, topog., geological features, botanical values and habitat.	1
E	Area south of Kalmiopsis interesting but does not represent wilderness experience	1
E	Retains a large acreage for dispersed recreation	1
E	We are strongly opposed to any expansion of Wilderness Area	1
E	Support areas that do not "Lock-up" timber production and provide primitive access roads	1
D	No Roads in Windy Valley	1
D	Where roads are developed trails should be maintained through or around those areas.	1
Other	Lumbering should utilize shelterwood and selective recutting	2
Other	Small percentage of population will use and enjoy wilderness	1
Other	Keep most of the forestland available for M.U.M.	1
Other	Need little or no additions to wilderness	1
Other	Can not ignore mineral value that maybe locked up	1
Other	Economy should not be curtailed by reserving large areas of timber for use by a small percent of the people	1
Other	Wildland finest left today	1
Other	Leave options open for decision in the future	1



Other	Timber cutting and road building are nearly irreversable commitments	1
Other	Wilderness Study should not take more than two years	1
B	Wilderness boundaries should be on natural boundaries	1
B	Craggie Fork (Blueslide) Area will help Big Craggies with the Kalmiopsis	1
C	Hold mining off until there is a greater need to do so	1
C	Proper logging practices whould create little problem	1

Modifications Proposed by B - E and Other Proponents:

	Include Illinois River and all drainages as protective watershed	7
	Allocate old-growth management areas (particularly Squaw Mtn. area south to area east of Kalmiopsis)	6
	Area east of Kalmiopsis to Squaw Mountain as watershed protection	4
	Squaw Mountain Roadless Area designated Backcountry or Wilderness	4
	Poorly stocked stand should be placed in marginal category with no cutting units until feasible	2
	Roads and logging not compatable with Backcountry designation	1
	Support Hoover Gulch R.N.A.	1
	Possible Roadless Areas at N. Pistol River, E. Fork Pistol River and E. Fork Winchuck River	1
	Eagle Mountain area should be in Wilderness Study	1

Public Opinion of Alternative F Presented in the Alternatives Brochure

Reasons Given in Support of Opinions Expressed:

	Full play of Multiple-use concepts	636
	Preservation of our timber base	164
	Jobs will be lost and economic base destroyed	35
	Land placed in Wilderness serves small majority	22
	Oppose any classification that would hamper exploration development, and mining	57
	Wilderness Study Area (3900 acres) is logical addition with logical boundary	4



U.S. has few domestic sources of the stratgic minerals chrome nickel and cobalt (Dependand on foreign countries)	9
Dependance on Forest Service timber will increase	4
Demand for wood products and minerals will increase	227
Do not want to reduce allowable cut	227
Consistent with initial management of National Forest System "great-est good for the greatest number of people"	6
Present policies adequately protects the resource	226
Adequate acreage has already been set aside for restricted status	64
Overripe timber should be harvested	2
Joesphine County has highest unemployment rate in Oregon	3
Wilderness and back-pack classification limits use and makes effect-ive management impossible	2
Need more intense management area not restriction	2
Includes flexibility in future management of mineral, timber, fish-eries and aesthetic resources	3
Adequate housing for the people of this nation is a basic need	1
Designation of an area greater than needed nullifies the maximization of the net public benefits	2
Available land for timber production, mining, and recreation should be increased not decreased.	2
There is a constant pressure to turn Curry County into a Federal Park	1
Area is not suited for wilderness	2
Mining in the area	1
Best interest for logging and lumbering industry	1
If public timber was managed more efficiently, these roadless areas would probably never be entered for cutting.	1
Harvest timber in orderly manner and block roads	1
Increasing need for wood products, minerals, and recreation make intensive management a necessity.	1
Once classed as wilderness it is impossible to mine	1



# MODIFICATIONS PROPOSED BY F PROPONENTS

Eliminate Hoover Gulch Area	381
Oppose Windy Creek back country classification	1
Remove all backcountry areas from Alt. F	11
Adding 3900 acres is enough	1
Opposed to enlarging Kalm. Wild. area at all	1
Add Fall Creek Roadless Area	1
Add Area from mouth of Soldier Creek up stream in unit - water of unusual purity and clarity and is cold even in the summer	1
Lightning Creek should be available for more developed recreation needs and mining	1
Hoover Gulch should be used for research in management techniques not as control for research	1
Instead of Hoover Gulch study natural occurrences in wilderness, wildrivers and other withdrawals	1



TABLE 1: Residence of Respondents by Interest Groups

Interest Groups	Local	Urban	Rural	Out of State	Not Given	Totals
Preservation-Oriented	38	24	4	47	5	118
Compromise-Oriented & Other	10	18	2	18	1	49
Development-Oriented	506	131	31	112	11	792
Totals	554	173	37	177	17	959

TABLE 2: Who Responded by Interest Groups

Interest Group	Individuals	Public Agencies	Private Organizations
Preservation-Oriented	106	2	10
Compromise-Oriented & Other	35	9	5
Development-Oriented	756	5	31
Totals	897	16	46

TABLE 3: Type of Input by Interest Group

Interest Group	Personnel Letters	Form Letters
Preservation-Oriented	85	33
Compromise-Oriented & Other	49	0
Development-Oriented	113	679
Totals	247	712



## APPENDIX L

### Description of RARE II Areas

176                                      North Kalmiopsis                                      113,632 Acres

The North Kalmiopsis area is located in Josephine and Curry Counties, Oregon. The area is drained by the Illinois River system. The terrain is rugged and generally forested. However, areas of rocky and shallow soil are not. Douglas-fir, sugar pine, tanoak and madrone are the principal tree species. Most of the streams are important for anadromous fish. Recreation use is concentrated along the Illinois River.

179                                      Squaw Mountain                                      8,064 Acres

The Squaw Mountain area is located in Josephine County, Oregon. Several small tributaries of the Illinois River drain the area. Topography is moderately rugged. Although much of the area is forested, stands typically are open. In addition, grassy barrens are scattered about the area and account for a large acreage on the serpentine soils in the eastern portion of this area. Average conifer timber volumes per acre are relatively low and the land's inherent productivity is also somewhat lower than the Forest average. Mineralized areas have attracted some prospecting activity. Recreation use is virtually nonexistent in the area. However, part of the area borders the more-heavily used Illinois River road. A variety of wildlife species utilizes the area, but population levels are generally low.

180                                      Windy Valley                                      13,491 Acres

The Windy Valley area is located in Curry County. Of the 13,491 acres in the area, only 48 acres are privately-owned. The remainder are National Forest lands. The area drains into two watersheds - Pistol River and Chetco River. Topography is moderately rugged and the area is heavily forested. Douglas-fir is the primary conifer, although knobcone pine is abundant near Snow Camp Mountain. The primary hardwoods are tanoak and madrone. The land's inherent productivity is relatively high. Several miles of lower Mineral Creek are considered important for steelhead spawning and rearing. Several trails cross the area, but recreation use is centered about Windy Valley in the northern arm of the area. Horse riding, hiking, and motor biking account for the moderate level of dispersed recreation in this portion of the area. Although a variety of wildlife species uses the area, population levels are generally low. Windy Valley is the most prominent feature in the entire area.

183                                      Kalmiopsis Addition                                      1,178 Acres

The Kalmiopsis Addition is located in Curry County, Oregon. The area is on the western boundary of the Kalmiopsis Wilderness and is moderately rugged and heavily forested. Tanoak and madrone are the predominant hardwoods while Douglas-fir is the predominant conifer. The land's inherent productivity is relatively high. Recreation use is light. A variety of wildlife uses the area but population levels are generally low.



The Mt. Emily area is located in Curry County, Oregon. The area includes most of the Emily Creek drainage. Emily Creek, a tributary of Chetco River, is an important stream for anadromous fish. Topography is typically rugged and the area is heavily forested. The principal conifer species is Douglas-fir while tanoak and madrone are the principal hardwood species. The land's inherent productivity is high relative to the Forest average. Ridgetop roads surround the area but recreation use in the area is virtually non-existent. A variety of wildlife species utilizes the area but population levels are generally low. Mt. Emily is the most prominent point in the area.

701

Siskiyou

8,294 Acres

The Siskiyou area is located in Del Norte County, California. Part of the area is adjacent to large roadless areas on the Six Rivers and Klamath National Forest to the south. The area is part of the upper watershed of the East Fork Illinois River. The lower half mile of that stream in this area is considered important for steelhead spawning and rearing. Topography is rugged and elevations are relatively high with several peaks exceeding 6,000 feet. Except the creek bottoms and lower slopes, most of the area is poorly forested. Ridgetops are typically barren and alpine in character. Primary conifers include Douglas-fir, Shasta red fir, and white fir. Tanoak is a primary hardwood. Average conifer timber volume per acre and the land's inherent productivity are both low relative to Forest averages. Several old trails cross the area but recreation use is light. The adjacent Youngs Valley outside the area is accessed by road and is used by campers and hikers. The alpine character of the high country along the crest is generally considered attractive. Prominent peaks in the area include Youngs Peak, Polar Bear Mountain, Lookout Mountain, and Black Butte. A variety of wildlife species utilizes the area.

702

Indian Creek

950 Acres

The Indian Creek area is located on the state line in Josephine County, Oregon. It is part of a roadless area on the Klamath National Forest in Siskiyou County, California.

707

North Fork Smith

1,135 Acres

The North Fork Smith area is located on the Oregon-California line in Curry and Del Norte counties. The Oregon portion is a very minor piece of the area which is primarily on the Six Rivers National Forest.

708

Packsaddle

9,315 Acres

The Packsaddle area is located on the Oregon-California line in Curry (Oregon) and Del Norte (California) Counties. Part of the area is on the Six Rivers National Forest. The area has rolling to broken topography with convex sideslopes. Vegetation is dense. Douglas-fir is the predominant species with interspersed redwoods in the creeks. The predominant hardwood species are tanoak, madrone and chinkapin. The lands inherent productivity is high for most of the area. A variety of wildlife species utilizes the area especially the black-tail deer.



The South Kalmiopsis area is located in Curry and Josephine Counties, Oregon. The area drains into the Smith, Illinois, South Fork Chetco, and Winchuck river systems. Topography is moderately rugged. The east portion is characterized by serpentine soils, broad rounded ridgetops, and steep sideslopes. Vegetation is sparse on these soils. Predominant conifers are white pine, knobcone pine, and Jeffrey pine. A large patch of granitic soils in the Buckskin Peak area is densely forested with Douglas-fir and sugar pine. Inherent productivity is low. Most of this area is highly mineralized. Large deposits of chromium and nickel are known to be in the area. Mineral exploration activities have created a large network of primitive, though substantial roads. Several old trails also cross the area. Recreation use is light-confined to off-road vehicles and a few hikers. The lower end of both the North and South Fork of Rough and Ready Creek and a mile of Whiskey Creek are considered important steelhead streams. The serpentine areas are biologic deserts for many wildlife species, however, a larger variety of wildlife species frequent the granitic islands. The west portion has rolling to broken and steep terrain. Generally the area lies within the marine sediments which are associated with the higher productive soils on the forest. Vegetation is dominated by Douglas-fir and tanoak. Roads form irregular peninsula-shaped boundaries around much of the area. A large variety of wildlife species inhabits this area. The South Fork Chetco and Winchuck are important salmon and steelhead streams.



Table R-3. Siskiyou National Forest RARE II Wilderness Attribute Ratings.

Area	Oppor- tunities for				Supple- mentary Attributes		Scenic Values
	Naturalness <u>1/</u>	Apparent Naturalness <u>2/</u>	Adjusted Naturalness <u>3/</u>	Adjusted Apparent Naturalness <u>4/</u>	Primitive Recreation <u>5/</u>	Supple- mentary Attributes <u>6/</u>	
No. Kalmiopsis 6176	High	Moderate	Outstanding	Very high	Very high	Infrequent	Significant
Squaw Mtn 6179	Very high	High	No deletions	Moderate	Moderate	Infrequent	Infrequent
Windy Valley 6180	Very high	Very high	No deletions	Moderate	Moderate	Infrequent	Significant
Kalmiopsis Add 6183	Outstanding	Outstanding	No deletions	High	High	Insufficient	Significant
Mt. Emily 6184	Very high	High	No deletions	Moderate	Moderate	Infrequent	Significant
Siskiyou 6701	Outstanding	Very high	No deletions	Very high	Very high	Significant	Outstanding
Indian Creek 6702	Outstanding	Moderate	No deletions	Moderate	Moderate	Significant	Outstanding
No. Fork Smith 6707	Very high	High	No deletions	Moderate	Moderate	Infrequent	Significant
Packsaddle 6708	Very high	High	No deletions	High	Moderate	Infrequent	Significant
So. Kalmiopsis 6709	High	Moderate	Very high	High	High	Infrequent	Significant

1/ How natural does the area appear to a technically trained individual. Possible ratings are: Outstanding, very high, high, moderate, low, very low, none.

2/ How apparently natural does the area look to the untrained casual visitor. Possible ratings are: Outstanding, very high, high, moderate, low, very low, none.

3/ Same as 1/ and 2/ except with some highly impacted areas deleted.

4/ The "chance to get away from it all". Possible ratings are: Outstanding, very high, high, moderate, low, very low, none.

5/ The opportunity for challenge. Possible ratings are: Outstanding, very high, high, moderate, low, very low none.

6/ Summation of cultural features, special ecological features, the presence of threatened and endangered species of plants and animals, and scenic values. Possible ratings are: Unique, outstanding, significant, infrequent, insignificant.

7/ Scenic values along. Possible ratings are: Unique, outstanding, significant, infrequent, insignificant.



LIST OF ROADLESS AREAS RECOMMENDED FOR INCLUSION IN RARE II  
SISKIYOU NATIONAL FOREST (3-29-78)

AREA NO.	NAME	GROSS	PVT	NET	JOSE- PHINE COUNTY	CURRY COUNTY	COOS COUNTY	DEL NORTE COUNTY	COMM. FOREST LAND
71	COPPER MTN	10,884	0	10,884	0	10,278	606	0	5,732
72	MULE CREEK	250	0	250	0	120	130	0	186
73	ROGUE	7,100	356	6,744	0	6,710	390	0	6,392
74	POTATO MTN	8,115	35	8,080	0	8,115	0	0	7,066
75	SHASTA COSTA	16,312	0	16,312	0	16,312	0	0	12,648
76	NO. KALMIOPSIS	113,478	224	113,254	61,773	51,705	0	0	82,497
77	QUOSATANA	5,524	10	5,514	0	5,524	0	0	4,281
78	BRIGGS	5,762	0	5,762	5,762	0	0	0	3,900
79	SQUAW MTN	8,064	0	8,064	8,064	0	0	0	5,625
80	WINDY VALLEY	13,491	0	13,491	0	13,491	0	0	8,595
83	KALMIOPSIS ADD.	1,178	0	1,178	0	1,178	0	0	646
84	MT. EMILY	5,947	0	5,947	0	5,947	0	0	3,358
81	SISKIYOU	8,294	0	8,294	0	0	0	8,294	6,094
82	INDIAN CREEK	950	0	950	950	0	0	0	724
83	KANGAROO	14,192	0	14,192	14,192	0	0	0	11,528
77	NO. FORK SMITH	950	0	950	0	950	0	0	783
78	PACKSADDLE	9,315	0	9,315	0	9,315	0	0	6,041
79	SO. KALMIOPSIS	<u>111,315</u>	<u>702</u>	<u>110,613</u>	<u>63,678</u>	<u>47,637</u>	<u>0</u>	<u>0</u>	<u>52,485</u>
	TOTALS	341,121	1,327	339,794	154,419	177,282	1,126	8,294	218,581
	PVT ACRES COUNTY				783	526	18	0	
	NET ACRES COUNTY				153,636	176,756	1,108	8,294	

Siskiyou National Forest (Gross) 1,162,951 Acres  
(Net) 1,090,499 Acres

Kalmiopsis Wilderness (FS) 179,900  
Wild Rogue Wilderness (FS) 27,200  
TOTAL 207,100  
Wild Rogue Wilderness (BLM) 8,700



OREGON

AREA CODE	AREA NAME	HAMMOND LANDFORM	WILDERNESS ATTRIBUTE RATING	WILDERNESS ASSOC. WILDLIFE SPECIES	BAILEY - KUCHLER ECOSYSTEM	CURRENTLY UNDER SPECIAL CLASSIFICATION	ALL GROWING STOCK (HARD AND SOFT WOOD)	ALL PRODUCTS PROGRAMMED HARVEST (HARD AND SOFT WOOD)	SITE PRODUCTIVITY	MAJUM	RECREATION		PRODUCING PROVEN AND POSSIBLE (HIGH) MINERALS					
											DISPERSED MOTORIZED	DISPERSED NON-MOTORIZED	MRVD	MRVD	CRITICAL	NON-CRITICAL	OIL/GAS	GEO THERMAL
NO	NAME	NO	4-28	NO	NO	ACRES	MMBF	CF/AC/ YR	ANIMAL USE MONTHS (ALL)	MRVD	MRVD	Y	Y	YES	N	N	N	NO
SISKIYOU N.F.																		
06171	COPPER MOUNTAIN	604	19	6	M2410 2	0	132.0	1.7	134	.0	.0	.8	Y	N	N	N	N	Y
06172	MULE CREEK	604	20	6	M2410 2	0	5.2	.1	97	.0	.0	.1	N	N	N	N	N	N
06173	ROGUE	604	13	7	M2410 2	752	162.0	2.1	134	.0	.0	.6	Y	N	N	N	N	N
06174	POTATO MOUNTAIN	604	18	8	M2410 2	1203	148.0	1.9	121	.1	.0	.8	Y	Y	N	N	N	N
06175	SHASTA COSTA	604	21	7	M2410 2	30	280.4	3.6	121	.0	.0	1.6	N	N	N	N	N	N
06176	NORTH KALMIOPSIS	604	21	7	M2410 2	0	1566.0	20.1	112	.0	.0	1.4	Y	N	N	N	N	N
06177	QUOSATANA	604	19	8	M2410 25	150	85.7	1.1	121	.0	.0	.5	N	N	N	N	N	N
06178	BRIGGS	602	15	10	M2410 2	0	62.3	.8	86	.0	.0	.2	Y	Y	N	N	N	N
06179	SQUAW MOUNTAIN	602	19	12	M2410 2	0	62.3	.8	64	.0	.0	.6	Y	Y	Y	N	N	N
06180	WINDY VALLEY	604,	20	7	M2410 25	0	93.5	1.2	121	.0	.0	.4	Y	Y	Y	N	N	N
					M2410 2	0	85.7	1.1	121	.0	.0	.4	Y	Y	N	N	N	N
06183	KALMIOPSIS ADDITIONS	684	24	7	M2410 25	0	.0	.1	97	.0	.0	.1	Y	N	N	N	N	N
06184	MT EMILY	604	19	7	M2410 25	0	62.3	.8	121	.0	.0	.4	N	N	N	N	N	N
06701	SISKIYOU	602	25	6	M2410 2	0	116.9	1.5	109	.1	.0	.7	Y	Y	Y	N	N	N
06702	INDIAN CREEK	602	19	9	M2410 2	0	15.6	.2	97	.1	.0	.1	Y	Y	N	N	N	N
06703	KANGAROO	604	21	7	M2410 2	0	241.5	3.1	121	.3	.2	1.1	Y	Y	N	N	N	N
06707	NORTH FORK SMITH	602	19	1	M2410 5	0	7.8	.2	64	.0	.0	.1	Y	N	N	N	N	N
06708	PACKSADDLE	604	20	6	M2410 25	0	85.7	1.1	121	.1	.0	.5	Y	Y	N	N	N	N
06709	SOUTH KALMIOPSIS	602	19	7	M2410 25	0	251.0	3.2	93	.0	.0	5.5	Y	Y	N	N	N	N
					M2410 5	0	483.0	6.2	64	.0	.0	1.0	Y	Y	Y	N	N	N

Revised chart from RARE II Draft Environmental Statement Supplement, 1978



## APPENDIX M

### Land Capability and Suitability for Resource Uses

The 464,712 acres of National Forest in the Chetco-Grayback Planning Unit were divided into 32 separate groups. These groups, or Resource Analysis Unit's (RAU's), are relatively homogenous with respect to physical characteristics and inherent productivities. Component land areas of each RAU are intermingled with other RAU components. There are more than 2,346 components, hence the average number of components per RAU is 73. The average size of components varies widely but averages about 200 acres.

Each RAU is evaluated in terms of capability and suitability. As used here, capability refers to the inherent productivity of the land to produce goods or services. (Management techniques may be required to reach this full potential, however, these techniques must stop short of artificially altering the resource. Hence, precommercial thinning helps insure attainment of inherent timber-growing capability; fertilization, in contrast, may result in a higher, artificially-created capability.) Capabilities for producing ten outputs are estimated for each RAU in the table below.

Suitability, as used here, answers the question "should output X be produced on this land?" To answer the question, value judgements must be imposed over capability estimates. Although these value determinations are most appropriately made when evaluating a set of land management alternatives, there are several well-established standards which can be used for suitability analysis. By resource output, these are:

1. Timber - Commercial forestlands must be capable of growing 20 cubic feet of useable wood fiber per acre per year. Lands with lower capabilities are not suitable for timber production. In this Unit, most of the 137,147 acres in RAU's 81 and 82 are not suited for timber production due to low productivity. In addition, some other RAU's are poorly suited to intensive timber management, being capable of producing more than 20 cubic feet per acre per year but considerably less than 50 cubic feet per acre per year. The unsuitable and poorly suitable lands are often found together in a complex mosaic. Existing inventory information does not permit an accurate mapping of the separate categories.
2. Developed Site Recreation - Although many of the serpentine lands (RAU's 81 and 82) have average slopes less than 30%, the usual harsh environment and sparse vegetative cover make these lands largely unsuitable for campground or picnicground recreation.
3. Wilderness - In accordance with provisions of Public Law 88-577, the Wilderness Act, only land which "...generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable..." will be considered for Wilderness.

Virtually the entire Unit is suitable, to some extent, for the production of the other inputs listed in the output capabilities table.



# ESTIMATED OUTPUT CAPABILITIES 2/

1/ RAU	Timber (MBF)	Developed Site Recreation (Visitor- Days)	Dispersed Recreation (Roads) (Visitor- Days)	Dispersed Recreation (Trails) (Visitor- Days)	Wilderness Recreation (Visitor- Days)	3/ Sediment (Cubic Yards)	3/ Water (Acre- Feet)	Per Acre		
								Black- Tailed Deer (Deer)	Pileated Woodpecker (Pairs)	Yellowed Bellied Sapsucker (Pairs)
111	.722	1.02	1.12	.31	.31	.072	4.71	.025	.007	.20
112	.722	4/	1.12	.31	.31	.239	5.15	.025	.007	.20
113	.663	4/	1.12	.31	.31	.779	5.58	.024	.007	.20
121	.722	1.02	1.12	.31	.31	.073	4.78	.025	.007	.20
122	.663	4/	1.12	.31	.31	.244	5.25	.024	.007	.20
123	.614	4/	1.12	.31	.31	.816	5.85	.023	.007	.20
211	.663	1.02	1.12	.31	.31	.068	5.80	.024	.007	.20
212	.614	4/	1.12	.31	.31	.224	6.33	.023	.007	.20
213	.565	4/	1.12	.31	.31	.726	6.87	.022	.007	.20
221	.614	1.02	1.12	.31	.31	.069	5.87	.023	.007	.20
222	.504	4/	1.12	.31	.31	.228	6.47	.022	.007	.20
223	.409	4/	1.12	.31	.31	.762	7.20	.020	.007	.20
311	.614	1.02	1.12	.31	.31	.019	3.87	.025	.007	.20
312	.565	4/	1.12	.31	.31	.065	4.29	.024	.007	.20
313	.455	4/	1.12	.31	.31	.231	5.08	.023	.007	.20
321	.565	1.02	1.12	.31	.31	.020	3.96	.023	.007	.20
322	.504	4/	1.12	.31	.31	.066	4.37	.022	.007	.20
323	.409	4/	1.12	.31	.31	.240	5.29	.021	.007	.20
411	.565	1.02	1.12	.31	.31	.071	6.13	.022	.007	.20
412	.504	4/	1.12	.31	.31	.222	6.80	.022	.007	.20
413	.455	4/	1.12	.31	.31	.847	8.00	.021	.007	.20
421	.409	1.02	1.12	.31	.31	.073	6.20	.020	.007	.20
422	.321	4/	1.12	.31	.31	.242	6.87	.018	.007	.20
423	.207	4/	1.12	.31	.31	.883	8.33	.015	.007	.20
511	.455	1.02	1.12	.31	.31	.011	3.75	.021	.007	.20
512	.362	4/	1.12	.31	.31	.038	4.17	.018	.007	.20
513	.282	4/	1.12	.31	.31	.136	4.92	.017	.007	.20
521	.409	1.02	1.12	.31	.31	.012	3.83	.020	.007	.20
522	.282	4/	1.12	.31	.31	.039	4.25	.017	.007	.20
523	.207	4/	1.12	.31	.31	.142	5.13	.015	.007	.20
81	.078	1.02 4/	1.12	.31	.31	.215	7.12	.011	.003	.10
82	.060	1.02 4/	1.12	.31	.31	.215	7.12	.010	.003	.10

## 1/ Resource Analysis Unit (RAU) code:

### a. First number indicates soil-geology type.

- 1 = Schists
- 2 = Deep Sediments
- 3 = Metavolcanics and Metasediments
- 4 = Shallow Sediments
- 5 = East Side Igneous
- 8 = Serpentine

### b. Second number indicates aspect.

- 1 = North, Northwest, Northeast, East
- 2 = South, Southwest, Southeast, West

### c. Third number indicates average slope

- 1 = 0-30%
- 2 = 31-60%
- 3 = 61%+

## 2/ Capability in terms of units per acre per year (e.g., for timber, MBF/Acre/Year).

## 3/ Average output minimums at natural rate.

## 4/ RAU's with average slopes exceeding 30% are not capable of providing satisfactory campground or picnicground recreation.



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Glossary of Terms

Aboriginal - The original human inhabitants of the area, i.e., the Indians.

Acre Foot - The volume of liquid required to cover one acre to a depth of one foot.

Administrative Trails - Trail constructed with primary purpose for use in fire control, grazing regulation, timber cruising, or road and land survey.

A.E. - (Animal Equivalent) an index to the number of animals that can be supported for a given time on a unit of land of specified vegetation. For example, one deer would require 20 acres of old-growth Douglas-fir for one year.

Aeolian - Wind deposited; carried or produced by wind.

Aerial Systems - Logging methods which can lift logs to a landing area and support them free of the ground enroute. Some of the currently operational methods include helicopters, balloons, and certain skyline cable systems. Areas suggested for aerial systems are those not directly accessible by road or where road construction would cause adverse environmental impacts.

Aggregate - A mineral, such as sand, gravel, or stone, used to make concrete.

Allocation Type - The mix of management activities which can occur on the same piece of land.

Allowable Cut - The calculation, by volume of board feet of timber, of the timber that can be harvested annually in accordance with prescribed management objectives.

Alternative - The different means by which objectives can be attained. They need not be obvious substitutes for one another or perform the same specific function.

Amenity - An object, feature, quality, or experience that gives pleasure or is pleasing to the mind or senses.

Anadromous Fish - Species which migrate from the ocean and up river and streams of their place of birth to spawn, e.g., salmon, steelhead.

Andesite - A fine-grained volcanic rock composed essentially of plagioclase feldspars and ferro-magnesian minerals.

Animal Unit Month (AUM) - An animal unit is considered to be one thousand pounds of live weight or a cow and calf. The quantity of forage consumed by the cow and her calf in one month is an animal-unit-month of other classes of livestock to an AUM.

Anticline - A fold that is convex upward; upbound strata.

Aquatic Habitat - The environment of plants and animals growing or living in or upon the water.

Aquifer - The zone below the earth's surface capable of producing water, as from a well.



Area Guide - A coordinated direction for those Forests sharing common issues, objectives, and management directions.

Aspect - The direction toward which a slope faces, i.e. north, east, etc.

A.T.V. - All terrain vehicle (see ORV).

Background - The distance part of a landscape, picture, etc.; surroundings, especially those behind something and providing harmony or contrast; surrounding area or surface. Area located from 3-5 miles to infinity from the viewer.

Basalt - An extrusive rock of volcanic origin; fine grained, dark colored.

Big Game - Large animals hunted for sport, e.g., elk, deer, bear, and cougar.

Biological Potential - An expression of the potential timber producing capacity of all commercial forest lands on the Siskiyou National Forest with the exception of existing Research Natural Areas and Wilderness Areas.

Biome - A major biotic unit consisting of plant and animal communities having similarities in form and environmental conditions.

Biotic - Of living organisms in their ecological rather than their physiological relations.

Board Foot - The amount of timber equivalent to a piece one foot by one foot by one inch thick.

Broadcast Burning - A controlled burn of unpile slash over a designated area.

Buffer Zone - A managed strip of varying size and shape for maintaining or enhancing aesthetic values along roads, trails, or water, and around recreation sites.

Capability (Land) - Ability of the land to produce organic materials. Usually related to soil and moisture characteristics.

Carrying Capacity - Ecological. The number of weight of organisms that can survive without causing deterioration of the ecosystem.

Characteristic Landscape - The naturally established landscape within a scene or scenes being viewed.

Cirque - A steep, bowl shape excavation in a mountain, made by glacial action, erosion, etc.

Clearcutting - A method of timber harvesting in which all trees, merchantable or unmerchantable, are cut from an area. Regeneration results in an even-aged stand.

Climax Forest - A community that represents the culminating stage of a natural forest succession for its locality or environment.

Commercial Forest (or Timber) Land (CFL) - Forest land which is producing or capable of producing crops of industrial wood at the rate of 20 cubic feet per acre per year and has not been reserved or deferred.

Commodities - Products produced from a parcel of land (i.e., outputs of wood, recreation, wildlife, etc.).



Consumptive Use - Resource use that results in consumption or removal of that resource from its location. Timber harvest, cutting Christmas trees, municipal water, successful hunting and fishing are examples of consumptive use.

Cubic Foot - The amount of timber equivalent to a piece one foot by one foot by one foot thick.

Cull Material - Any item of production, e.g., trees, logs, lumber rejected because it does not contain usable material or falls below certain minimum standards.

Cultural Treatment - Activities designed to modify vegetation for a desired objective. Activities include thinning, genetics, fertilization, etc.

Declining Flow - A timber yield which in future decades can be less than in the first decade of calculation.

Deferred Forest Land - Productive forest land that has been administratively identified for study as possible additions to the Wilderness System or other withdrawal from timber utilization under authority granted in the Federal Code of Regulations.

Demand - The amount of goods or service that will be consumed if offered at a given price at a particular point in time.

Dendritic Drainage Pattern - A system of rivers where the tributaries have irregular branching characteristics joining the main stream at all angles.

Dense Cover - Vegetation of sufficient density to hide at least 90 percent of a mature elk at 150 feet.

Developed Recreation - Concentrated public use on a developed site which is a relatively small, distinctly defined portion of the National Forest used for the traditional recreation purposes such as camping, picnicking, downhill skiing, etc.

Dispersed Recreation - Recreation use outside of a developed recreation site, ranging from scenic driving to backpacking.

Dominant Overstory - Generally a species of the upper layer of the canopy that exerts the greatest influence on the character of the community because of its life-form or abundance.

Dwarf Mistletoe - A parasitic plant that grows on conifers, deforming and weakening trees.

Ecosystem - The interrelationships of living organisms with each other within their environment.

Ecotone - The transition zone between two adjoining plant communities.

Endangered Species - An endangered species or subspecies is one whose prospects of survival and reproduction are in immediate jeopardy. Its peril may result from one or many causes--loss of habitat or change in habitat, overexploitation, predation, competition, disease. An endangered species must have help or extinction will probably follow. Found on U.S. Department of the Interior list and published in the Federal Register.



Environment - The sum of all external conditions and influences affecting the life, development, and survival of an organism.

Esthetics (Aesthetics) - Generally the study, science, or philosophy dealing with beauty and with judgements concerning beauty; giving visual pleasure; the theory of perception or of susceptibility.

ET Rate - (Evapo-Transpiration rate) - The conversion of water, whether open or as soil moisture or with plants, into water vapor that is released to the atmosphere.

Eutrophication - The process of a body of water becoming richer in dissolved nutrients.

Even Flow - Maintaining a relatively constant supply of timber from decade to decade.

Foreground - The detailed landscape found within 0 to 1/4-1/2 mile from the observer. Where details of texture, pattern, and vegetation can be observed.

Forest Coordinating Requirements - Management objectives and policies that establish the relationship to be maintained between resources, uses, activities, or ecological systems.

Forest Receipts - Income received by the Forest from sale and use of Forest products, including timber, grazing, Christmas trees, minerals, recreation, and summer home permits.

Fuel Hazard - A supply of fuel that forms a special threat of ignition or suppression difficulty.

Fuels - Include both living plant and dead woody unvegetative materials.

Geomorphic - Pertaining to the figure of the earth or the form of its surface; resembling the earth.

Geothermal Energy - Useful energy that can be extracted from naturally occurring steam, hot water, or rocks found in the earth's volcanic and young orogenic zones.

Goal - A statement of desire about the end to be achieved by a management practice.

Goods (Commodities) - Tangible products produced from a parcel of land that can be measured, i.e., wood, water, livestock.

Grade - The rise or fall of the ground surface of the line of a road, ditch, or other linear construction expressed in one unit vertical to so many units horizontal.

Grooved Till Plane - An area of moraine or glacial till which has been covered with an ice sheet resulting in a surface with grooves lying in the direction of the ice movement.

Group Selection System - A tree management system where trees are periodically removed in small groups here and there from an area. Regeneration is mainly natural.

Habitat - The portion of the environment required for a plant or animal to maintain itself.



Helispot - This is an area that is provided for helicopter landing but has no on-the-ground access by roads. It requires a cleared area 50 feet in diameter and clear approaches at a 45 degree angle.

Hiding Cover - That density of vegetation which hides 90 percent of an animal within 200 feet. Optimum size hiding cover is four to eight sight distances wide.

High-Lead (Cable) Logging - A method of powered cable logging in which the main-line blocks are hung high on the spar tree to enable the front end of the logs to be lifted clear of the ground as they are transferred to the log deck.

Intermediate Cut - Any removal of trees from a stand between the time of its formation and the harvest cutting; generally includes clearing, thinning.

Lakes - Bodies of standing water of considerable size, surrounded by land.

Land Capability - A measure of the capability of the land to produce goods and services without imposed restraints such as lack of manpower and finances of other priority uses and without damage to the land.

Land Classification - A system of documented study to identify land that meets National Forest purposes, and to determine those lands that should be added to or deleted from the National Forest to achieve a land pattern that will maximize general public benefits.

Landscape Management Zone - A type of recreation zone in which the scenic resource is recognized as the primary value and there is need to design management practices to protect and/or enhance scenic values.

Landslide - Downward and outward movement of slope-forming materials, such as rock, soils, debris, artificial fills, or a combination of these materials.

Land Suitability - A measure of the suitability of land, as it exists in natural condition, for a single resource use or combination of uses.

Life Zone - A series of more or less distinct bands of plant and animal communities encountered when travelling from low elevation to high elevation.

Lode Claim - A mining claim--usually a deposit of valuable mineral between definite boundaries; a vein or fissure. A lode consists of several veins spaced closely enough so that all of them, with the interveining rock, can be mined as a unit.

Low Impact Roads - Roads having minimal impact on the environment.

LMP - Land Management Plan. A plan for managing the National Forest. The plan incorporates national guidelines and objectives, policies, and target outputs from area guides. It includes objectives and policies for specific planning units, and for special areas within planning units.

Management Alternative - The allocation types which are possible for a specific area.

Marginal Land - Commercial forest land that, because of economical, physical, or technological characteristics, is not presently feasible to manage for timber harvest, but which may become feasible in the near future.



Maximum Modification - Management activities may subordinate the original characteristic landscape. When viewed as foreground or middleground, the activity may not appear to borrow from natural factors. When viewed as background, it would appear as part of the overall natural composition.

Metallic - Of or belonging to metals, particularly the valuable metals that are the object of mining.

Metastable - Stable with respect to small disturbances but capable of reaction if disturbed sufficiently.

Middleground - The space between the foreground and the background in a picture or landscape. The area located from 1/4-1/2 to 3-5 miles from the viewer.

Miocene - Geological age. The fourth of the five epochs within the Tertiary Period.

MMBF - Million Board Feet.

Modification of Character - Management activities may dominate the original characteristic landscape but must borrow from natural factors of form, line, color, and texture so that the visual characteristics are those of similar natural landscapes. A natural appearing composition or design.

Moraine - Deposits caused by direct glacial action.

Motorized Travel - Travel requiring the use of powered vehicles including off-road vehicles such as snowmobiles, motorcycles, trail bikes, power boats, and 4-wheel drive vehicles.

Non-Commercial Forest Land - Forest land that is incapable of producing crops of industrial wood at a rate of 20 cubic feet per acre per year or more.

Non-Declining Even Flow - Established periodic (10 year) potential yields no higher than can be maintained from one decade to the next. (See FSM 2410.3-2 Emergency Directive #16).

Objective - End result, goal, or target; a future condition or result to be accomplished.

Oligocene - A geological age; the third of the epochs into which the Tertiary Period is divided.

ORV - Off-Road Vehicle - A vehicle capable of cross-country travel or travel on low-grade undeveloped roads and trails. For example, motor bikes, four-wheel drives, and snowmobiles. Include all-terrain vehicles (ATV's).

Output - The results of intensive management strategy that have been applied to the Planning Unit, stated in units per year.

Parent Material - The horizon of weathered rock from which the soil is formed.

Partial Retention of Character - A management activity may be evident and may visually change the essential quality of the existing landscape. However, these changes must be subordinate to the visual strength of the characteristic landscape.



Perennial Plant - A plant that normally lives for three or more years.

Pesticide - Any chemical preparation used to control populations of injurious undesirable organisms, plant or animal.

Planning Area - The largest land use planning subdivision of the Forest Service. A specifically identified geographic area containing social and physical resources and land characteristics of a generally similar nature.

Planning Unit - A geographic area (including lands within and contiguous to a National Forest), characterized by a particular pattern of topography, climate, and land use. Planning units are established to provide a focus for planning activities in a small enough area to be workable and a large enough area to enable the planners to envision or predict the cause-and-effect relationship of management alternatives.

Pleistocene - The geological epoch beginning approximately 1,000,000 years ago and ending 50,000 years ago. Characterized by the rise and recession of continental ice sheets and by the appearance of man.

Policies - Guidelines to achieve objectives.

Preattack Planning - A system for collecting, evaluating, and recording fire intelligence data for a given planning unit or preattack "block." The planning phase is usually followed by a construction and development program integrated with other management functions.

Prescribed Burning - Controlled application of fire to fuels in either their natural or modified state under such conditions of weather, fuel moisture, and soil moisture as to allow the fire to be confined to a predetermined area and at the same time to produce the intensity of heat required to further contain planned objectives of silviculture, wildlife, and forest hazard reduction.

Preservation of Character - Provides ecological change only. Used for wilderness or other similar special areas.

Pyroclastic - A term applied to volcanic material that has been explosively or aerially ejected from a volcanic vent.

Recreational - The level and type of recreation use that an area can provide without deterioration of the quality of the recreation experience or the resource from an area.

Recreation Visitor-Day - The presence of one or more persons engaged in recreational activity for continuous, intermittent, or simultaneous periods aggregating 12 hours.

Reforestation - Restocking an area with trees.

Regeneration - The renewal of a tree crop, whether by natural or artificial means.

Regeneration Harvest - Final harvest of a stand and preparation of the land for a new stand. It may take the form of clearcutting or shelterwood cutting.

Rehabilitation - The act of restoring a portion of forest land to its former state or capacity. This can be done by reshaping the land and/or planting grass or trees.



Research Natural Areas - Designated areas of land, usually over 300 acres in size, with characteristics of scientific or educational interest. They should represent as many as possible of the major, natural timber types or other plant communities in unmodified conditions.

Resource Allocation - The action of apportioning the supply of a resource to specific uses or to particular persons or organizations. For the purpose of this statement, resource allocation is synonymous with land use allocation.

Resource Capability System (RCS) - A computer-oriented analysis to assist in evaluating resource capabilities, limitations, and management alternatives of forest lands.

Retention of Character - A management activity would not change the essential quality of the existing dominance factors of form, line, color, or texture.

RIM (Recreational Information Management) - A computer-oriented system for the management of recreation information about people, places and things over a period of time.

Riparian Vegetation - Plants occurring on or immediately adjacent to streams, lakes, or tidewater.

Risk - The opportunity for a fire to start, be it man-caused or from lightning.

Roadless Area - A generic term describing the unroaded nature or status of an area of land. Inventoried Roadless Areas are those areas identified in the Roadless Area Review and Evaluation (RARE) process, as well as those areas subsequently identified in the land management process.

Road Prism - Constitutes the total area of road excavation including the cut bank, the ditch, the road, and the filled area below the road.

Rotation Age - The age of a tree at which it is harvested. It indicates the time required to produce the general size and character of the principal product desired.

Runoff - The total stream discharge, including both surface and subsurface flow, expressed in quantity over a specified time (thousand gallons per day, acre feet per year, etc.).

RVD - Recreation Visitor Days; see Visitor Day.

Salmonoid - A family sub-order of cold-water, fine-scaled fish including salmon and trout.

Scale - Generally a size relationship between an object and its environment or surroundings.

Scenic River Areas - Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads.

Scribner Log Scaling Rule - A diagram rule, one of the oldest in existence. It assumes 1-inch boards and 1/4-inch saw kerf, and makes a liberal allowance for slabs and disregards taper. It is the official rule in many parts of the United States.



Second Growth - A relatively young stand of forest trees which may or may not be ready for commercial cutting. It may be either a stand of artificially reproduced or natural trees. It is younger than old growth but older than reproduction.

Sedimentation - The deposition of suspended matter carried by water.

Sensitivity Level - A particular degree or measure of viewer interest in the scenic qualities of the landscape.

Sere - A stage of vegetation development in a plant successional series.

Services (Amenity Values) - An expression of intangible aspects of pleasantness or desirableness commonly associated with recreation, scenic, and wildlife related experience.

Shelterwood Cutting - A form of regeneration harvest involving the removal of all trees on an area of land in appropriate successive stages designed to provide for natural and/or artificial regeneration and shelter of seedlings from climatic extremes.

Silviculture - The theory and practice of controlling the establishment, composition, competition, and growth of forests.

Slash - The residue left on the ground after merchantable material has been removed. It includes unutilized logs, stumps, tops, limbs, twigs, leaves, bark, and chips.

Solid Waste - Debris and garbage generated by forest users.

Solitude - An experience where man may commune with his surroundings in a natural setting generally undisturbed by sound or sight of technology.

Special Areas - Special areas are zones or areas classified by Congress, Secretary, Chief, or Regional Forester, such as Wilderness, Research, Natural, Scenic, Historic, Geologic, and Archeologic.

Special Use Permit - A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of National Forest land for some special purpose, e.g., organization camp, summer home, guide service, ski area, barn, corral, church, logging, camp, fish hatchery.

Streamflow - The discharge of water from a watershed that occurs in a natural stream channel.

Streamside Management Unit (SMU) - The stream and an adjacent area of varying width where practices that might affect water quality, fish, and other aquatic resources are modified, as necessary, to meet SMU goals for each class of stream.

The width of this area will vary with the management goals for each class of stream, characteristics of the stream and surrounding terrain, and type and extent of the planned activity.

Subgrade - That part of a road foundation consisting of the road bed only, excluding the base and surfacing material.



Succession - The gradual supplanting of one plant community by another.

Supply - The amount of goods or service that will be offered for sale at a given price at a particular point of time.

Sustained Yield - The achievement and maintenance in perpetuity of a high-level periodic output of the various renewable resources of the National Forest without impairment of the productivity of the land. Usually used in relation to timber yield.

Tarn - A small mountain lake or pool, especially one that occupies an ice-gouged basin on the floor of a cirque.

Thermal Cover - Thermal cover is provided by coniferous trees over 40 feet tall, with greater than 60 percent crown closure, less than 50 percent of the tree bole with crown, and a stand which permits air movement underneath the canopy. Optimum size elk thermal cover is 30 to 60 acres. Optimum size deer thermal cover is two to five acres, minimum width is 300 feet.

Thinning - Removal of trees to reduce stocking to a recommended level.

Threatened Species - A threatened species or subspecies is one that, although not presently threatened with extinction, is in such small numbers throughout its range that it may be endangered if its environment worsens. Close watch of its status is necessary.

Timber Resources Allocation Method (Timber RAM) - A computer based analytical approach designed to generate cutting schedules and yields for commercial Forest lands under multiple-use management. These timber RAM plans can be used to evaluate current management policies and goals and to develop new ones.

TM - Timber Management.

Topograph - The configuration of the solid surface of the earth.

Total Resource Information (TRI) - A user-oriented system for storage and retrieval of information on resources of a specific land area. The concept is similar to traditional township, range, and section method of describing land area, except that TRI uses compartments and cells based on aerial photographs.

Trailhead - A trailhead is where transfer from automobile travel to foot, horseback, or bike takes place.

Transportation Network Analysis (TNA) - An analytical technique utilizing computer programs to manipulate transportation network inventories and to study the economic and operational efficiency of transport systems.

Trend Count - An inventory process taken over a series of years to determine changes in animal populations.

Type Conversion - The conversion of one type of vegetative cover to another, i.e., the conversion of brush or Forest covered lands to grass.



Understory Vegetation - Grass, small trees, shrubs, and other plants found beneath the overstory; overstory being the trees making up the forest canopy.

Unique Species - A plant or animal species not classified as endangered or rare, but which has considerable scientific or national interest. Usually, special protection or management measures.

Unit Plan - A plan for managing a specific part of the Forest. Plans will have sufficient detail to begin project planning.

Variety Class - A particular level of visual variety or diversity of landscape character.

Visitor Days - This is the use of National Forest Land which aggregates 12 person hours; e.g., one person for 12 hours, three people for four hours, or 12 people for one hour.

Visual Quality Objective - A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape.

Wilderness Recommendation Area - Roadless area selected by the Forest Service for its apparent high potential for future wilderness classification. Each wilderness recommendation area will be the subject of future detailed study to determine its availability and suitability for wilderness or other uses.

Wild River Area - Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.

Winter Range Habitat - That portion of the total habitat where animals can survive the winter. It is generally the limiting factor in population density.

Yards of Aggretate - A unit of measure; one cubic yard in size, of sand, gravel or rock.

Xeric - Pertaining to dry sites.



## APPENDIX P

A list of contributors to the Environmental Statement follows:

William R. Ronayne, Former Supervisor Siskiyou National Forest  
William Covey, Supervisor Siskiyou National Forest  
John Millet, Watershed Staff  
Walt Johansson, Timber Staff  
Nick Mc Donough, Forest Engineer  
Dale Farley, Lands and Recreation Staff  
Jack Fowler, Fire Management Staff  
Frank Barnhardt, Logging Specialist  
Eugene Duncan, Forester  
Jim Stichter, Forester  
Gordon Anderson, Forester  
Tom Tuso, Civil Engineering Technician  
Ross Frid, Landscape Architect  
Lloyd De Werff, Landscape Architect  
Bob Vorce, Forester  
Lee Webb, Wildlife Biologist  
Don King, Fisheries Biologist  
Fred Everest, Fisheries Biologist  
Dave Braley, Forester  
Bill Hansen, Hydrologist  
Mike Amaranthus, Soil Scientist  
Russ Kahre, District Ranger  
Jim Schelhaas, District Ranger  
Don Mc Lennan, Resource Assistant  
Al Frank, Timber Management Assistant  
Joe Waller, Resource Assistant  
Len Ramp, Oregon State Geologist  
Norm Peterson, Oregon State Geologist



## National Forest Visual Management System

The Visual Resource Management System involves an inventory of scenic and sociologic values through which visual goals are established.

<u>Inventory</u>	<u>Goals</u>
<u>Variety Class</u>	<u>Visual Quality Objectives</u>
Physical features of the land.	Degrees of acceptable alteration of the natural landscape.
<u>Sensitivity Level</u>	
People's concern for scenic quality.	

In the inventory phase, the landscape is evaluated and placed into three variety classes. The classification is based on the premise that all landscapes have scenic value but those with the most diversity have the greatest potential for high scenic value. The three classes are:

- |                        |  |
|------------------------|--|
| Class A - Distinctive: | Usually exhibits rugged landforms. Rock, water, and vegetation stand out as being unusual. |
| Class B - Common:      | Features are obvious but do not stand out.   |
| Class C - Mineral:     | Features have very little variety or interest.   |

The sociologic inventory measures the people's concern for scenery (Sensitivity Levels). Two steps are involved in establishing sensitivity levels. First, areas are identified as being either primary or secondary in importance. Second, the concern of the user is identified.

- |                                |  |
|--------------------------------|--|
| Level 1 - Highest Sensitivity: | Includes seen areas from primary areas where at least one-fourth of the users have major concern for scenic qualities.   |
| Level 2 - Average Sensitivity: | Includes seen areas from primary areas, where fewer than one-fourth of users have major concern for scenic quality. Also includes seen areas from secondary areas, where at least one-fourth, and not more than three-fourths, of the users have a major concern for scenic quality. |
| Level 3 - Lowest Sensitivity:  | Includes seen areas from secondary areas where less than one-fourth of the users have a major concern for scenic qualities.  |

The seen areas are also mapped and categorized into foreground, middleground, and background.



The maps from these two inventories are combined to determine visual quality objectives by using the following matrix.

Distance Zone and Sensitivity Level	Visual Quality Objectives*						
	Fg1	Mg1	Bg1	Fg2	Mg2	Bg2	3
Class A	R	R	R	PR	PR	PR	PR
Class B	R	PR	PR	PR	M	M	M MM
Class C	PR	PR	M	M	M	MM	MM

\*R - Retention

PR - Partial Retention

M - Modification

MM - Maximum Modification

P - Preservation: Not indicated on matrix; however, is applied to special classified areas, or areas awaiting special classification.

The visual quality objectives establish degrees of alteration of the natural landscape based on aesthetics. The acceptable level of alteration from least to most is:

Preservation: Provides for ecological change only.

Retention: Generally means that man's activities are not evident to the casual forest visitor.

Partial Retention: Man's activities may be evident but must remain subordinate to the characteristic landscape.

Modification: Man's activity may dominate the characteristic landscape, but must utilize naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Maximum Modification: Man's activities may dominate the characteristic landscape but should appear natural when viewed in the background.

A full explanation of the visual resource system can be found in Natural Forest Landscape Management, Volume 2, Agriculture Handbook Number 462.



# APPENDIX R

## Estimated Numbers and Values of Fisheries by Watershed

Table X - R-1. Catch, effort, and net value of sport fisheries for anadromous salmonids produced in watersheds which intersect the Chetco-Grayback Planning Unit, 1975.

watersheds, fishery parameters	chinook	coho	steelhead	cutthroat	total
Chetco					
catch	34,380	6,880	2,500	750	44,510
angler-days	53,090	10,660	6,000	830	70,580
net value	\$1,628,880	\$341,120	\$192,000	\$26,560	\$2,258,560
Illinois					
catch	27,500	1,930	3,600	450	33,480
angler-days	34,010	2,380	8,640	500	45,530
net value	\$1,088,320	\$76,160	\$276,480	\$16,000	\$1,456,960
Pistol					
catch	2,750	280	180	600	3,810
angler-days	3,710	370	430	660	5,170
net value	\$118,720	\$11,840	\$13,760	\$21,120	\$165,440
Smith					
catch	20,630	6,880	6,600	750	34,860
angler-days	32,130	10,730	15,840	830	59,530
net value	\$1,028,160	\$343,360	\$506,800	\$26,560	\$1,904,960
Winchuck					
catch	2,750	280	350	230	3,610
angler-days	4,180	420	840	540	5,980
net value	\$133,760	\$13,440	\$26,880	\$17,280	\$191,360



Table X - R-2. Estimated numbers and value of salmon produced in watersheds which intersect the Chetco-Grayback Planning Unit which were taken by commercial fisheries in 1975.

watershed, fishery parameters	Stocks		total
	chinook	coho	
Chetco			
catch	90,630	18,130	108,760
weight	942,500	117,850	1,060,450
value	\$989,600	\$89,560	\$1,079,160
Illinois			
catch	72,500	5,080	77,580
weight	754,000	32,990	786,990
value	\$791,700	\$25,070	\$816,770
Pistol			
catch	7,250	730	7,980
weight	75,400	4,710	80,110
value	\$79,170	\$3,580	\$82,750
Smith			
catch	54,380	18,130	72,510
weight	565,560	117,850	\$683,310
value	\$593,830	\$89,560	\$683,390
Winchuck			
catch	7,250	730	7,980
weight	75,400	4,710	80,110
value	\$79,170	\$3,580	\$82,750











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